DOCUMENT RESUME

ED 129 516 RC 009 473

AUTHOR Koepke, Sharon Margaret
TITLE The Effects of Outward Bound Participation Upon Anxiety and Self Concept.
PUB DATE Dec 73
NOTE 122p.; MS Thesis, Pennsylvania State University. For related document, see ED 099 162
AVAILABLE FROM Inter-Library Loan, Pennsylvania State University, University Park, Pennsylvania 16802

EDRS PRICE MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS Age Differences; *Anxiety; Correlation; *Hypothesis Testing; Masters Theses; *Outdoor Education; Physical Education; *Positive Reinforcement; Post Testing; Pretesting; *Self Concept; *Sex Differences; Stress Variables; Student Characteristics
IDENTIFIERS Experiential Learning; Gough Adjective Check List; *Outward Bound; State Trait Anxiety Inventory

ABSTRACT

The relationship between physically and psychologically stressful experiences and the anxiety and self concept of 33 male and 11 female participants (aged 16-38 years) in a 23-day Colorado Outward Bound (OB) course was analyzed. It was hypothesized that the effects of the OB experience would: be the same for male and female participants; alter real self concept; alter the discrepancy between real and ideal self concept; change state anxiety; and increase the relationship between state and trait anxieties and real self concept. Employing pre- and post-testing procedures, tha analysis involved 23 scales of the Gough Adjective Check List to delineate both real and ideal self concept and the state and trait scales of the State-Trait Anxiety Inventory to determine anxiety levels. Data were analyzed via the Wilcoxon Matched-Pairs Signed-Ranks test, the Mann-Whitney U test, and the Spearman Rank Order Correlation Coefficient. Results indicated: female OB participants set higher ideals for themselves than males, but male and female anxieties and self concepts were more similar than dissimilar; OB participants experienced changes at the conclusion of the course, viewing themselves more positively and narrowing the gap between real and ideal perception; OB participants exhibited a high anxiety level just prior to the course but demonstrated a correlation between low levels of anxiety and positive self perceptions. (JC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED129516

The Pennsylvania State University

The Graduate School

College of Health, Physical Education and Recreation

The Effects of Outward Bound Participation Upon Anxiety and Self Concept

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A Thesis in

Physical Education

by

Sharon Margaret Koepke

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

December, 1973

Date of Approval:

9/26/73

Dorothy V. Harris

Dorothy V. Harris
Professor of Physical Education
Thesis Adviser

9/26/73

Betty van der Smissen

Betty van der Smissen
Associate Dean for Graduate Study
and Research

RC8C374173

ACKNOWLEDGEMENTS

Sincere appreciation is extended to Dr. Dorothy V. Harris for her continued guidance, encouragement, and patience throughout this study, and to Dr. Betty van der Smissen and Dr. Karl G. Stoedefalke who served as committee members.

The writer would also like to thank the staff of the Colorado Outward Bound School whose cooperation and assistance made this study possible: Mr. Joseph J. Nold, director of the school; Mr. Gary A. Templin, deputy director of the school; and Mr. Terry Burnell, course director and test administrator. Gratitude is likewise expressed to those Outward Bound participants who gave of their time to be subjects.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS ii

LIST OF TABLES vi

CHAPTER

I. INTRODUCTION AND STATEMENT OF THE PROBLEM 1
Statement of the Problem 4
Hypotheses 4
Delimitations 5
Definitions 5
Basic Assumptions 6
Limitations 6

II. REVIEW OF LITERATURE 8
PART A: SELF CONCEPT 8
Theoretical Concept 8
Significance of the self concept 8
Real and ideal self concepts 10
Changes in self concept 11
Related Studies in Self Concept 13
PART B: ANXIETY 15
Theoretical Concept 15
Significance of anxiety 15
Anxiety and self concept 17
Anxiety and stress 18
Related Studies in Anxiety 20
PART C: STRESS 23
Theoretical Concept 23
Related Studies in Stress 24
PART D: OUTWARD BOUND 26
Theoretical Concept 26
Origin of Outward Bound 26
Basic concepts of Outward Bound 28
Recent history of Outward Bound 30
Modern applications of Outward Bound 32
Related Studies Concerned With Outward Bound 36

Page

III. PROCEDURES 42
Subjects 42
Program 42
Test Selection 44
Self concept 44
Anxiety 46
Collection of Data 47
Analysis of Data 48

IV. ANALYSIS OF DATA 50
Biographical Data of Subjects 51
Real Self Concept 51
Differences between pre- and posttest real self concepts 51
Differences between male and female real self concepts on pre- and posttests 54
Ideal Self Concept 57
Differences between pre- and posttest ideal self concepts 57
Differences between male and female ideal self concepts on pre- and posttests 59
Discrepancies Between Real and Ideal Self Concepts 61
Discrepancies between real and ideal self concepts on pre- and posttests 62
Comparison of pre- and posttest real-ideal discrepancies 64
Differences between male and female real-ideal discrepancies on pre- and posttests 66
Anxiety 68
Differences between pre- and posttest state and trait anxieties 68
Differences between male and female state and trait anxieties on pre- and posttests 70
Relationships Between Self Concept and Anxiety. . . . 72
Relationships between real self concept and state and trait anxieties on pre- and posttests 72
Relationships between ideal self concept and state and trait anxieties on pre- and posttests 75

V. SUMMARY, FINDINGS, AND CONCLUSIONS 78
Summary of Procedures 78
Summary of Findings 79
Conclusions 82
Implications of This Study 83
Recommendations for Further Study 87

Page

BIBLIOGRAPHY. 91

APPENDIX A. DESCRIPTIONS OF SELECTED ACL SCALES 98

APPENDIX B. INSTRUCTIONS FOR TEST ADMINISTRATION, LETTERS, OF INTRODUCTION, AND ACL TEST INSTRUCTIONS 106

APPENDIX C. STATE AND TRAIT ANXIETY SCORES 113

LIST OF TABLES

TABLE		Page
1	Differences between pre- and posttest real self concepts for selected ACL scales utilizing the Wilcoxon test (N=44)	53
2	Differences between male and female real self concepts on pre- and posttests for selected ACL scales utilizing the Mann-Whitney U test (N=M-33, F-11)	55
3	Differences between pre- and posttest ideal self concepts for selected ACL scales utilizing the Wilcoxon test (N=44)	58
4	Differences between male and female ideal self concepts on pre- and posttests for selected ACL scales utilizing the Mann-Whitney U test (N=M-33, F-11)	60
5	Differences between real and ideal self concepts on pre- and posttests for selected ACL scales utilizing the Wilcoxon test (N=44)	63
6	Comparison of pre- and posttest real-ideal self concept discrepancies for selected ACL scales utilizing the Wilcoxon test (N=44)	65
7	Differences between male and female real-ideal self concept discrepancies on pre- and posttests for selected ACL scales utilizing the Mann-Whitney U test (N=M-33, F-11)	67
8	Differences between pre- and posttest anxiety measures for STAI scales utilizing the Wilcoxon test (N=38)	69
9	Differences between male and female anxiety measures on pre- and posttests for STAI scales utilizing the Mann-Whitney U test (N=M-29, F-9)	71
10	Relationships between real self concept and anxiety measures on pre- and posttests for selected ACL scales and STAI scales utilizing the Spearman test (N=38)	74

TABLE

Page

11 Relationships between ideal self concept and anxiety measures on pre- and posttests for selected ACL scales and STAI scales utilizing the Spearman test (N=38). 76

12 Pre- and posttest state and trait anxiety scores (N=M-33, F-11) 114

CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

The concept of self is pervasive in its importance to all human beings.

> The self is something of which we are immediately aware. We think of it as the warm central, private region of our life. As such it plays a crucial part in our consciousness (a concept broader than self), and in our personality (a concept broader than consciousness), and in our organism (a concept broader than personality). Thus it is some kind of core in our being (Allport 1961, p. 110).

Each individual views himself from a unique perspective: he is both the subject and the object of his observations. The sum of all the ideas and feelings that a person may have regarding his body, his mind, and his personal characteristics composes his self concept (Jersild, 1963).

Two basic components of the self concept might be identified in the concepts of real self, containing the attitudes and ideas about what I am really like, and the ideal self, including the ideas of what I wish or want to be (Jersild, 1963). But these major components, lending consistency to the overall self concept, also may reflect many different facets. The self is not rigid and immutable, but flexible, molded by social circumstances. "The individual has many potential selves. He carries with him the capacity to define himself as warm or cold, dominant or submissive, sexy or plain" (Gergen 1972, p. 64). Although flexible in its parts,

the generalized consistency of the self concept is of great value to the individual.

> Self-concepts constitute an individual's means of viewing himself and the surrounding world. He interprets his environment and the people in it in the light of his self-conceptions, and his problem solving and role behavior is based upon and limited by these same concepts of self. The insights he has are mediated by his self-process and he tests reality in terms of the image he has drawn of himself (Horrocks and Jackson 1972, p. 134).

Self influences and is influenced by all the situations the individual encounters.

One such situation is that which is perceived as physically or psychologically dangerous. Spielberger (1972) classified objective external conditions of danger under the heading of "stress." When conditions are perceived as stressful, the threat of possible physical or psychological injury to the organism is signaled by anxiety; the warning issued by anxiety helps to mobilize the human organism's resources to a higher level of functioning, learning, and new forms of adjustment in the interests of conservation, defense, and self-preservation (Basowitz et al. 1955). Individual anxiety reactions will vary according to anxiety proneness (trait anxiety); the more anxiety prone an individual may be, the easier it will be to elicit a situationally specific anxiety response (state anxiety) (Spielberger 1966).

The stress situations that evoke an anxiety response need not be harmful to the individual; certain types of stress may constitute exciting, adventuresome, thrilling experiences (Berrard 1968). Because fear may still be evoked due to the stressful nature of these

experiences, there is a paradoxical intermingling of pain and pleasure in these exciting adventures (Klausner 1968).

One example of a voluntarily pursued stressful experience is found in the Outward Bound program. An Outward Bound course consists of three weeks of vigorous backpacking, sailing, or canoeing, and includes rock climbing, rappelling, and a solo experience; both psychological and physiological stresses are therefore inherent in the course structure. The stressful nature of the course may invoke anxiety; confronting these stresses and coping with that anxiety may influence one's perception of one's self. Indeed, Bernstein (1972) recognized that a wilderness program such as Outward Bound could provide a behavior setting conducive to improved self-functioning; such a program elicits "coping" rather than "defensive" behavior and provides positive reinforcement in mastering challenges.

Many schools, both at the secondary and college levels, have incorporated the Outward Bound experience itself or Outward Bound techniques into their programs (Outward Bound, Inc. 1971; Jones, Nye, and Remley 1972). Other schools have established instructional courses in physically and psychologically stressful sports such as skiing, SCUBA diving, sky diving, and mountaineering (Wendel 1972; Carlson and Wignall 1972; Ritchy 1972). These new programs are, for the most part, incorporated within the realm of established physical education departments.

The effects of these stressful experiences upon participants must be evaluated by the physical educator conducting or establishing such activities in his school. Relatively little research has been

effected in this area to date. Because Outward Bound provides such an intensely stressful situation, both physically and psychologically, this program appeared to be a suitable context in which to study the psychological effects of coping with stress. Of particular interest to this study was the effect of combating stress upon anxiety and self concept.

Statement of the Problem

The purpose of this study was to determine if participation in a physically and psychologically stressful experience had any effect upon anxiety and self concept; specifically, this study examined the effects of the Outward Bound experience upon the anxiety levels and self concepts of male and female participants.

Hypotheses

The hypotheses tested in this study related to the effects of Outward Bound participation: Does the Outward Bound experience alter the self concepts and anxiety levels of participants? The specific hypotheses under investigation pertained to male and female participation, self concept, and anxiety. It was hypothesized that:

1. The effects of the Outward Bound experience upon self concept and anxiety would be the same for male and female participants.

2. The effects of the Outward Bound experience upon self concept would include two aspects: (a) real self concept would be altered following participation; and (b) the discrepancy between real and ideal self concepts would change following participation.

3. The effects of the Outward Bound experience upon anxiety would include two aspects: (a) state anxiety would change following participation; and (b) state and trait anxieties would be related to real self concept.

Delimitations

This study included 33 male and 11 female participants in course C-104, conducted by the Colorado Outward Bound School, May 7-May 29, 1973. The psychological and physical stresses involved in this study were those stresses inherent in the Outward Bound course; no attempt was made to modify this program for the purposes of this study.

The measures of self concept and anxiety were delimited to specific testing instruments. Twenty-three scales of the Gough Adjective Check List were used to delineate both real and ideal self concept. The state and trait scales of the State-Trait Anxiety Inventory were used to determine anxiety levels.

Definitions

The following terms are operationally defined as they were used in this study:

State anxiety (A-State) - "State Anxiety (A-State) is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity" (Spielberger 1970, p. 3).

Trait anxiety (A-Trait) - "Trait Anxiety (A-Trait) refers to relatively stable individual differences in anxiety proneness, that

is, differences between people in the tendency to respond to situations perceived as threatening with elevations in A-State intensity" (Spielberger 1970, p. 3).

Real self concept - The real self concept involves attitudes and ideas about what "I am really like"; it includes conscious attitudes of self-approval or disapproval and convictions regarding worthiness or unworthiness (Jersild 1963).

Ideal self concept - The ideal self concept involves attitudes and ideas about "what I wish I were or think I should be"; it includes aspirations vigorously pursued and hopes dimly realized (Jersild 1963).

Basic Assumptions

It was assumed that self concept and anxiety are personality traits measurable with paper and pencil tests. In respect to the self concept tests in particular, it was assumed that an individual can perceive and distinguish his real self from his ideal self.

Limitations

One limitation of the study was the timing of the selected course. As the course began before many schools were dismissed for the summer, certain high school and college students were eliminated from inclusion as subjects.

A second limitation was the variety in ages, personalities, and backgrounds of the subjects involved in this study.

A third limitation was the differences in instruction due to the assignment of course participants to small groups.

Finally, this study was limited by test administration procedures: persons other than the experimenter actually administered the tests.

CHAPTER II

REVIEW OF LITERATURE

This study investigated the effects of a physically and psychologically stressful experience upon the anxiety levels and self concepts of participants. The Outward Bound program was selected as the specific stressful experience. Both male and female participants in the Colorado Outward Bound program were incorporated into this study.

A survey of the literature concerning self concept and anxiety revealed only a few studies relating these theories to stress situations such as are found in the Outward Bound program. A number of related studies were reviewed, however. For purposes of discussion, the following chapter was divided into four parts: (A) Self Concept; (B) Anxiety; (C) Stress; and (D) Outward Bound. Each of these topics was examined according to its theoretical concept. Pertinent studies were then cited that related particularly to this study.

PART A: SELF CONCEPT

Theoretical Concept

The theoretical bases of self concepts are discussed in the following paragraphs. Of particular interest to this study were the significance of the self concept, real and ideal self concepts, and changes in self concept.

Significance of the self concept. The effect of social activity upon the concept of one's self was especially stressed by Mead (1934). Self is first developed through an organization of the particular attitudes of other individuals toward self and toward one another; there follows an organization of attitudes of the generalized other or the social group to which the individual belongs. Self is therefore developed; it is not present as such at birth.

Combs and Snygg have approached the conception of self through the phenomenal field theory. Within his perceptual field, an individual can differentiate certain aspects as characteristic of self; self concept is the basic core of these perceptions. Specifically, Combs and Snygg have defined self concept as "those parts of the phenomenal field which the individual had differentiated as definite and fairly stable characteristics of himself" (Snygg and Combs 1949, p. 112). "Self-concept encompasses the many individual perceptions of self and organizes them into a symbol or generalization of self which facilitates dealing with self; self forms the individual's basic frame of reference" (Combs and Snygg 1959, p. 146).

Wylie (1961), in her extensive review of self concept literature, indicated the importance of self concept in the prediction of behavior. When setting a level of aspired performance on a particular task, the self-accepting person would have a small, positive discrepancy between performance level and goal. Self-rejecting persons, however, would set goals they could easily exceed or set goals far beyond their capabilities. A low degree of phenomenal self-regard might be indicative of "maladjustment" while a high level of self-regard could indicate either good adjustment or the denial of problems.

The concept of self is important; indeed, it constitutes "some kind of core in our being" (Allport 1961, p. 110). Levels of self-regard are not predetermined: the perception of self is not innate, but developed after birth. Allport (1961) has enumerated seven stages in the development of a self concept: (1) a sense of bodily self; (2) a sense of continuing self-identity; (3) self-esteem or pride; (4) the extension of self; (5) self-image; (6) the self as a rational coper; and (7) propriate striving, the pursuit of long-range purposes and goals. These stages originate as the infant begins to differentiate his body from the world around him; they culminate in the adolescent's pursuit of long-range goals. Allport termed the developed sense of self the "proprium" in which the self is experienced as the object of knowing and feeling.

Because the development of a sense of self is really established during adolescence, the adolescent is constantly concerned with the question "Who am I?" Rosenberg (1965) credited this preoccupation with self as a result of the many decisions, many changes, and unusual status ambiguity experienced by the adolescent. The self concept being established involves attitudes towards self; therefore it could include dimensions characteristic of attitudes in general such as direction, intensity, salience, importance, clarity, stability, and consistency (Rosenberg 1967). But at the same time, attitudes toward self are unique. The self is reflexive; because self is both the subject and object of observations, a self concept can never be completely objective and detached. A person's attitudes toward himself define what he is and what he is not; they determine his

self-image (Sherif and Sherif 1967). This definition of self in turn regulates the relationships of the individual to other people, objects, and situations (Sherif and Sherif 1969).

Coopersmith (1967) acknowledged that the concept of self is multidimensional, reflecting diverse experiences, attributes, and capacities; self includes different emphases during the process of abstraction. For a child, abstractions concerning self may be vague. Additional experiences, however, give perspective and symbolic representation to the concept of self, and abstractions become more precise and complex. Self concept expresses "an attitude of approval or disapproval" and thereby constitutes "a personal judgement of worthiness" (Coopersmith 1967, p. 4).

Indeed, man's only reality is his self: each person must build an identity to interpret and cope with the environment (Horrocks 1969). Thus the self concept, involving man's attempt to define and understand himself, is of vital importance for each individual.

Real and ideal self concepts. Jersild has described the self concept as "all the ideas and feelings a person has regarding the properties of his body, the qualities of his mind and his personal characteristics" (Jersild 1963, p. 22). This basic sense of self may be differentiated into concepts: (1) the real or actual concept of "what I am"; and (2) the ideal concept of "what I would like to be." The concept of actual self includes conscious attitudes of approval and disapproval and convictions about worthiness or unworthiness: these attitudes may be generalized into an overall self-accepting or self-rejecting concept (Jersild 1963). The ideal

self includes aspirations that are vigorously pursued, hopes that seem distant or dim, and the planned fulfillment of weak or unfinished areas of self; the overall tone of these strivings may range from unrealistic dreams to somber ideas of improvement within reach (Jersild 1963).

The relationship between ideal and real concepts of self may serve as an indication of the individual's level of adjustment: the greater the discrepancy between real and ideal concepts, the greater the problems of adjustment (Lindgren, Byrne, and Petrinovich 1966). The individual who behaves in ways contrary to his own ideals or self-expectations is likely to be confronted with feelings of guilt, inferiority, and anxiety. Thus successful therapy for self-rejecting persons would reflect a decrease in the gap between real and ideal self concepts.

The overall perception of self is based upon the concepts of real and ideal selves (Horrocks 1969). An individual's value system may form the basis for ideal self; real self, however, is a result of the testing of hypothesized selves according to perceived situational demands (Horrocks 1972). Although real and ideal self concepts are basic components of a sense of self, neither concept is totally unalterable.

Changes in self concept. Changes in self concept may occur throughout the life of an individual; change is constantly taking place in his phenomenal self as he perceives the varying reactions of others to himself (Snygg and Combs 1949). According to Combs and Snygg (1959), many changes are only peripheral; real fundamental

changes in self concept may be more gradual and subtle. Indeed, substantial change in self concept may be inhibited because individuals tend to: (1) ignore experiences which are contrary to self concept; and (2) select perceptions so as to confirm the established view of self (Combs and Snygg 1959).

The self concept may be more malleable before it has been firmly established; however, important personality changes may occur after childhood (Sarason 1962). The theory that personality is more plastic in infancy and childhood than adulthood has not been fully proven; changes may be more effective during childhood in some respects, but not in others (Sarason 1962).

Gergen (1971) recognized a basic consistency to self concept, but at the same time acknowledged the multiplicity of self perceptions that vary according to situations. Indeed, the self that is presented at a particular time is influenced by other people, the interaction environment, and personal motivation. Within the consistency of self there is differentiation according to specific situations. Thus as Gergen stated "We are made of soft plastic, as molded by social circumstances"; the self is remarkably flexible (Gergen 1972, p. 64). The adoption of a particular "self" or mask may be conscious at first, but individuals come to believe that the masks they wear are real. Gergen recognized the many potential selves within an individual; social conditions help determine which option will be evoked. Thus self concept is not a permanent, immutable characteristic of the individual: other people or the environment may effect changes in one's view of one's self.

Related Studies in Self Concept

Studies dealing with self concept have analyzed both existing concepts and changes in self concept following a prescribed activity. An examination of the discrepancy between real and ideal self concepts has frequently served as a means of evaluating the adjustment of subjects. This real-ideal discrepancy was investigated by Hanlon, Hofstaetter, and O'Conner (1954) in their study of 78 high school boys. A variation of Roger's Q-sort was administered along with the California Test of Personality. Correlations between real self and ideal self were positive with an overall tendency toward congruence of the two concepts of self. The correlation between real-ideal congruence and total adjustment was found to be positive and highly significant; intelligence and age showed no significant relationships with real-ideal congruence and measures of adjustment. Thus congruence between real and ideal self concepts appears to reflect a normally adjusted personality.

This real-ideal discrepancy was examined by Nelson (1965) in her study of eighth grade girls before and after a physical education unit in basketball. The 42 subjects were classified according to ability through the Scott Motor Ability Test; real and ideal self concepts were measured through a Q-sort technique. Low, average, and high ability groups all changed significantly in real self concept. The discrepancy between real and ideal self concepts was not significant in any case: Nelson attributed this to lack of understanding by the subjects in the ideal self Q-sort. Because motor ability had increased, Nelson concluded that there was some relationship between motor ability and self concept after a basketball unit.

Johnson, Fretz, and Johnson (1968) worked with specific self concept changes in 74 emotionally disturbed, brain damaged, and mentally retarded children involved in a six week physical development program. An analysis of preclinic and postclinic scores revealed: (1) a decrease in self-ideal self discrepancy on height; (2) an increased willingness to be with larger groups of children; (3) an increased willingness to be near the clinician; and (4) an increased desire (self-ideal) to be near fathers. Testing procedures were modified for these children; however, changes that did occur indicated children involved in a special education program may experience self concept changes.

Actual physical condition may not be reflected in one's opinion of one's self. Neale, Sonstroem, and Metz (1969) tested 165 adolescent boys for self-esteem, physical fitness, and attitudes toward physical activity. Although self-estimates of physical ability related to attitudes toward activity and participation in activity, there was no significant difference in the general self-esteem of high fit and low fit boys. Fitness alone does not appear to affect self concept.

More than physical fitness was incorporated into Meiser's (1971) study of candidates for four women's intercollegiate field hockey teams. Because her study involved both those that made the team and those that were cut, success and failure, as well as physical activity, entered the study. Gough's Adjective Check List was administered before the cuts were made and at the conclusion of the season as a measure of self concept. Results showed that both those competing

for a position on the team and those regularly playing on the team experienced changes in self perception. Thus participation alone may influence self concept; the amount of participation does not determine the degree of positive change.

PART B: ANXIETY

Theoretical Concept

The significance of anxiety and its relation to self concept and stress are discussed in the following section.

Significance of anxiety. Sigmund Freud (1936) examined the origins of anxiety. Noting that anxiety was perceived as a feeling, Freud observed that this anxious feeling first arose as a response to a situation of danger, both in animals and in human beings. Repetition of dangerous situations resulted in repeated anxiety sensations; these feelings were perceived as unpleasant. Accompanying this anxious state was an increase in neurological excitation; motor discharges were made along definite pathways. Thus distinctive anxiety attributes were proposed by Freud to include: (1) a specific unpleasurable quality; (2) an efferent or discharge phenomenon; and (3) the perception of these.

Freud (1933) classified anxiety into two categories based upon the differing reactions involved. Objective anxiety included those conditions of increased motor tension and sensory perception that allowed an intelligible response to danger. This reaction to anticipated injury could take one of two possible routes: fight and defend or flight and escape. These objective anxiety reactions

would be directed towards a specific dangerous situation. Neurotic anxiety, on the other hand, would be more ambiguous: these anxiety reactions would be directed into either a general free-floating apprehensiveness or into phobias.

Differing perceptions of threatening situations may account for variances in anxiety levels between organisms. Spielberger (1966) has formulated a State-Trait theory of anxiety that may further explain individual differences. State anxiety is conceptualized as a transitory emotional condition, varying in intensity, fluctuating according to situations. Spielberger has likened state anxiety to kinetic energy, in that it is a condition characterized by activity. By definition, state anxiety can be seen to include both the consciously perceived feelings of tension and the heightened autonomic activity. Trait anxiety, on the other hand, refers to the anxiety proneness, the tendency to respond to situations with high state anxiety. Trait anxiety has been compared to potential energy, as it may indicate the probability of active state anxiety reactions. Persons with high trait anxiety would be expected to have more frequent fluctuations of state anxiety.

Fromme (1967) agreed that it is the presence or absence of a basic anxiety such as trait anxiety that determines the reactions to situations that normally produce fear. As Fromme pointed out, even a trauma or highly emotionally disturbing experience affects two people differently; Spielberger's State-Trait theory may explain these differential effects of anxiety.

Roubicek (1969) based the concept of anxiety upon a threat to the organism involved; this threat may be either psychological or

somatic. In relation to the fight or flight aspect of anxiety, Roubicek delineated passive from active anxiety. Passive anxiety, accompanied by a temporary cessation of respiration, bradycardia, and perhaps a transitory paralysis of movement, is basically a primitive reflex for escape by simulating death. Active anxiety, accompanied by increased muscular tension, tachycardia, and acceleration of breathing, corresponds to the instinct for defense, preparing the body to fight. Because anxiety can relate to either the psychological or somatic self, the actuality of the threat may not matter. The relevance of the threat will not depend upon its actual nature, but the subjective perception and evaluation of the situation by the individual. Thus anxiety, Roubicek maintained, can be associated with the projection of self into the future, in anticipation of threats to personal injury.

Anxiety and self concept. Anxiety as a reaction to perceived psychological threats may be somewhat related to self concept. Sarason (1962) maintained that high anxious subjects were found to be more self-deprecatory, more self-preoccupied, and generally less content with themselves than low anxious subjects. Subjects scoring high and low in anxiety differ in their response tendencies activated by personally threatening conditions: low scoring subjects may react with increased effort and attention while high anxious subjects respond to a threat with self-oriented, personalized responses. Optimal adjustment of a person may be reflected in a positive self concept; good adjustment is also characterized by a low level of anxiety (Sarason 1966). A poorly adjusted person would

experience the uneasiness or tension of anxiety as a result of the incongruencies between the perception of self and the total experience of the individual (Sarason 1966).

Levitt (1967) related anxiety and self concept in terms of the discrepancies between real and ideal selves. A small discrepancy between real and ideal selves is normal; indeed, such a discrepancy made lead to desirable self-improvement. A large discrepancy, however, "can cause chronic discontent, unwholesome personality patterns, and even psychopathological symptoms" (Levitt 1967, p. 41). To escape the anxiety provoked by a threatening self concept, coping mechanisms such as projection may be applied. The anxious person with a large real-ideal discrepancy may be neurotic in addition to having a poor opinion of himself; he may even distort reality to improve his own self concept. As another alternative, counter-phobic behavior may be utilized; by directly confronting the object or activity feared, anxiety is thwarted and self-esteem enhanced. The individual who is anxiety prone is more easily threatened; because he is easily threatened he may in turn lower his opinion of himself. Thus, according to Levitt, low self-esteem may be an important cause of high anxiety proneness.

Anxiety and stress. The relationship between anxiety and stress centers on the original function of anxiety as a warning of approaching danger. Basowitz et al. (1955) recognized anxiety as a signal of the organism's mobilization of a higher level of functioning in response to a threat. According to Basowitz, "stress" referred to that class of conditions and of stimuli that were more likely to

arouse an anxiety response. Selye (1956), in his delineation of the General Adaptation Syndrome, cited an alarm reaction as the initial step in this response. This could correspond to an anxiety increase resulting from the confrontation of a stressful situation. Korchin (1965) recognized the function of anxiety as a signal of danger which can lead to the implementation of anticipatory and defense reactions that can promote more directed and better organized problem solving. Spielberger (1966), in his definitions of state and trait anxiety, asserted that differences in trait anxiety result in varying probabilities that anxiety states will be manifested under different degrees of stress; the stress that prompts anxiety reactions may be the threat of real or perceived danger.

Grinker (1966) agreed that anxiety and stress are interrelated: indeed, "anxiety has a special role in the adjustive processes of the human organism, as both an indicator of response to stress and a precursor of further stress responses" (Grinker 1966, p. 131). Levitt (1967) defined the stress situation as the set of circumstances that contains stimuli or conditions calculated to arouse anxiety in the individual; a "stress reaction" is an alteration of individual condition or performance which comes about as a result of being under stress.

Spielberger (1972) used stress and threat to denote different aspects of a temporal sequence of events that results in an anxiety state. Stress in particular refers to the objective external stimulus properties of a situation which is characterized by some degree of danger. A situation that is objectively stressful will

be perceived by most individuals as threatening, and an anxiety reaction will be evoked. However, nonstressful situations may be perceived as threatening because of the individual's idiosyncratic perception of that particular situation as physically or psychologically dangerous. Thus it would appear that anxiety and stress are interrelated: anxiety seems to function as a warning signal in the presence of physically or psychologically stressful circumstances.

Related Studies in Anxiety

Basowitz et al. (1955) conducted a field study on a group of young and healthy men taking paratroop training. The purposes of this study included an investigation of the emotional state aroused by training, the effects of stress upon psychological functioning, the changes in stress reaction over training, and the relation between initial personality and subsequent reactions to stress. The study was conducted at the U.S. Army Infantry School in Fort Benning, Ga. Subjects had all volunteered to undertake paratroop training; the actual training camp was composed of three weeks of mostly practical training with a serious and businesslike atmosphere. The final week of training included five jumps from a plane. Subjects tested showed little anxiety; the focus of the anxiety present was upon fear of failure rather than fear of death or destruction. The dangers of parachute jumping were perceived as less threatening than the danger of failing and not meeting internalized ideals or externalized expectations. No predictable relationship was found between initial personality variables and behavior during training.

The relationship between anxiety and stress has also been studied in the laboratory. Carron (1968) structured an experiment to investigate the timing of stress application upon both high anxiety and low anxiety persons. Using as subjects freshmen males, selected because of their scores on the Taylor Manifest Anxiety Scale, Carron randomly assigned 60 high anxiety subjects and 60 low anxiety subjects into three groups: (1) stress applied early; (2) stress applied late; and (3) a control group with no stress. Subjects were given practice trials on the stabilometer for two days. During actual experimentation, electric shock was applied on trials four to six for the early stress group and on trials 65-67 for the late stress group. Early applications of shock were found to affect high anxiety and low anxiety subjects differently: low anxiety subjects did not appear to be affected by stress; the performance of high anxiety subjects, however, was significantly inferior when early stress was applied. Late applications of stress influenced both groups equally; performance of both high and low anxiety subjects dropped below the control group performance level. Thus it would seem that anxiety level can affect performance under stress in certain situations.

Fenz and Epstein (1969), working within the risk sport of parachuting, investigated anxiety levels of novice and experienced performers. Examining subject responses to both words and pictures that were either neutral or sport related, Fenz and Epstein found consistent differences between novice and experienced jumpers. Novice defense reactions were found to be either excessive or nonexistent. Novice arousal increased with the more relevant words and

pictures, with anxiety levels peaking on the actual jump day. Experienced jumpers, on the other hand, exhibited selective anxiety that peaked earlier than the novice's and began to level off as jump time approached. Thus it appeared that experienced parachutists, rather than completely shutting off anxiety, utilized their apprehensions as a controlled early warning system.

Leviton (1970) approached situationally specific anxiety by investigating the anxiety reactions of risk and nonrisk sport participants. Using 25 race car drivers (risk sport) and 20 bowlers (nonrisk sport) as subjects, Leviton employed tachistoscopic tasks to measure and compare visual recognition threshold responses to neutral-, death-, and crash-word stimuli. Subjects were tested immediately before and after their sporting event; several months later they answered a questionnaire on death. Anxiety was manifested in a perceptual defense that required an increase in geometric mean light intensity of over five percent for neutral words beyond that light intensity needed to recognize death words. This reaction was pervasive for both racing car drivers and bowlers. Although the questionnaires demonstrated that death was not consciously considered, the tachitoscopic task revealed that death was subconsciously feared by all sport participants.

Working with the Stressful Situations Questionnaire, a forerunner of Spielberger's State-Trait Anxiety Inventory, Hodges and Felling (1970) also examined situational specific anxiety. These experimenters considered both state and trait anxiety in male and female undergraduate college students. Results found females to

be more apprehensive than males in situations involving physical danger or pain; both males and females showed increased anxiety in situations involving speech, social or academic failure, and dating. The level of trait anxiety was not found to correlate with physical danger responses, but a low correlation with the other three ego-involving situations was revealed. This seemed to indicate that self-esteem may help to determine anxiety reactions.

Cain (1971) also dealt in her studies with anxiety and ego involvement. Ten high trait anxiety and ten low trait anxiety subjects were given an anxiety symptoms inventory consisting of 20 scenes, ten of which were other-threatening, five of which were ego-threatening and a final five that were non-ego-threatening. Subjects responded both openly and through fixed alternatives as to how upsetting the scene appeared, what action would be taken, and predicted coping ability. No difference was found in the reactions of high trait anxiety subjects between the ego-involving and non-ego-involving threats. An inverse relationship was found between reported state anxiety and the perceived coping ability. Thus high anxiety could be seen as an inhibitor of an adequate coping response to a threatening situation.

PART C: STRESS

Theoretical Concept

Selye (1956) described the physiological effects of stress in his General Adaptation Syndrome: although nonspecifically introduced, the syndrome specifically included an alarm reaction, a stage of

resistance, and a stage of exhaustion. Stress was defined by Selye as the "rate of wear and tear in the human machinery" (Selye 1963). This stress reaction is not always harmful; it accompanies all activity and is absent only in death.

Stress is also defined psychologically. Korchin (1965) asserted that psychological stress occurs in situations where there is sufficiently potent danger to require extraordinary measures to maintain an organized functioning. Lazarus (1966) recognized stress as peculiar to humans and animals in the tremendous influence it has upon behavior; stress should be defined in terms of transactions between individuals and situations because of the personality factors involved in the stressful situation.

Physiological and psychological stresses need not be totally harmful. Bernard (1968) has proposed a distinction between harmful and unharmful stress: she defines "dys-stress" as the unpleasant stress and "eustress" as the exciting, adventuresome, pleasant stress. Klausner (1968) agreed that stress may be pleasant; indeed, stress seeking may become an end in itself. Yet because stress does evoke certain psychological and physiological responses, there is a paradoxical intermingling of pain and pleasure in the pursuit of eustress.

Related Studies in Stress

The specific stressful situation of concern to this study was the Outward Bound experience. Because attendance at Outward Bound is voluntary, it appeared expedient to review certain studies on other voluntarily attended stressful activities. Huberman (1968)

administered Gough's Adjective Check List to regular participants in a number of stressful or risky sports. Results showed risk takers to be above average in need for achievement, dominance, order, and endurance. Risk seekers were slightly below average in succorance, personal adjustment, and heterosexuality. On the whole, however, Huberman found risk seekers to be as satisfied with themselves as non risk takers.

Lester (1969) examined the participants in an American attempt to climb Mt. Everest. He found these men to be highly intuitive and introverted yet self-assertive in regard to individuality. In a similar study of the Sea Lab project in which ten men lived in restricted quarters under the sea for two weeks, Radloff (1969) found that the amount of self-expressed fear in subjects had an inverse relationship to the time spent outside diving. Radloff proposed that the psychological and physical rewards of the experience outweighed the psychological and physical costs of coping with the stressful experience. Thus the men involved had wanted to participate in what appeared to be a very stressful and dangerous experiment.

Klausner (1970) likewise concerned his experiment with the motivational factors behind stress seeking. Motivations behind sky diving were examined through 825 pictorial questionnaires answered by parachutists in 106 sky diving clubs. Although sky diving appears to contain both self-affirmative and self-obliterative aspects, Klausner found that sky diving takes on primarily self-assertive aspects when it is part of an effortful, achievement oriented context in which group members demand social

control, high level activity, and the mastering of fear through practice.

Cober (1972) examined certain personality factors in 65 participants in the high risk sports of SCUBA diving, sky diving, and mountaineering in addition to 60 participants in nonrisk sports. The Cattell Sixteen Personality Factor Questionnaire was administered to these subjects for the factors of emotional stability, enthusiasm, venturesomeness, self-reliance, and self-assuredness. Cober found high risk subjects to be significantly more self-assured, confident and serene than non-risk subjects. The risk sport males were significantly more tough-minded, self-reliant, and realistic than the risk-sport females. Experience also affected personality responses: experienced risk-sport participants were significantly more tough-minded, self-reliant, and realistic, as well as more self-assured and confident than the novice risk sport participants.

PART D: OUTWARD BOUND

Theoretical Concept

The stressful experience of particular interest to this study was the Outward Bound program. Because the reader may not be familiar with this program, a brief summary of the origin, the basic concepts, recent history, and modern applications of the Outward Bound program follow.

Origin of Outward Bound. The concept of a physically and psychologically challenging wilderness course evolved from the educational philosophy of Dr. Kurt Hahn. Following World War I,

Hahn served as headmaster of a German school at Salem on Lake Constance. It was here that Hahn firmly concluded that through continuous, purposeful athletic training normal adolescents can be brought to attain the maximum standards possible within their capabilities (Hahn 1957). With the advent of World War II, Hahn was forced to abandon the educational experimentation he had begun at Salem because of his opposition to Hitler. The German educator, however, did not forsake the educational approach he had begun to formulate. In 1933 Hahn became headmaster of a boarding school at Gordonstoun, Scotland, where he continued to implement his educational philosophy. Hahn believed in measuring educational success not by a quantity of knowledge but by the quality of the students. Thus the program at Gordonstoun included not only standard academic disciplines, but also regular athletic training sessions, involvement in the community immediately outside the school through fishing and boat-building, and the opportunity to serve others through the maintenance of a coastguard service for that portion of the coast. A specific goal was set for the boys at Gordonstoun; by demonstrating prowess in athletics, on land and sea expeditions, in life-saving, and by observing training conditions, they could earn the Moray Badge (Hahn 1957).

Hahn believed that the benefits derived from meeting physical and mental challenges should not be restricted to boarding school boys. Therefore the challenges of the Moray Badge were adapted to a program for those outside the boarding school and labeled the County Badge program. However, it soon was recognized that the most

expedient method of meeting these challenges was found in a residential experience; therefore a four week, short-term course of challenges which would be open to all boys was proposed. Because sailing expeditions were among the challenges presented in Hahn's proposed program, a shipowner by the name of Lawrence Holt eventually offered financial support for the project. Holt maintained that with the development of engines and complex instruments, seamen had lost their sense of wind and weather, their inter-dependence, and their ability to rely on their own physical, nervous, and technical resources in the event of a calamity (Hogan 1968). The loss of these qualities, Holt believed, was responsible for the high casualty rates then found in the crews of merchant ships downed by enemy action in the Battle of the Atlantic. Although the financial backing of his firm stemmed from the vocational benefits of Hahn's program, Holt himself agreed that the challenge course was "less a training for the sea, than a training <u>through</u> the sea" (Hahn 1957, p. 10). Thus in autumn of 1941 Hahn's proposed short-term challenge course was initiated in Aberdovy, Wales; Holt labeled the endeavor the Outward Bound Sea School.

<u>Basic concepts of Outward Bound</u>. Although the Outward Bound Sea School was used during World War II as a training experience for young British seamen, the goal of all-around character development remained intact. The basic concepts upon which Outward Bound was founded became more clearly defined when the Outward Bound Trust was established in 1946 as the school's governing body. Three years later, a specific definition of Outward Bound was formulated. The character training that was inherent in Hahn's educational philosophy

became a permanent aspect of the program. Thus it was established that

> The Schools must be founded on the following principles: They must be residential and the courses must last for a minimum of four weeks. They must be open to all, based on a spiritual foundation, and must contain a diversity of occupations and nationalities, without political or sectional bias. They must present each boy with a set of conditions and give him possibly for the first time, the opportunity to discover himself. These conditions, self-discipline, teamwork, adventure, physical hardship and some risk, are rarely met with except in time of war. They must endeavor to develop character through training with a vocation or other practical interest (Summers 1957, p. 25).

The specific goals formulated by the Outward Bound Sea School revolved around the concept of "Fourfold Achievement." Outward Bound Badges were awarded to those who attained set standards in physical tests, a project of knowledge and technical skill, an expedition, and a service task in addition to observing certain training conditions (Hogan 1968). For some time, various types of badges were awarded to allow for variations in individual capabilities; eventually, however, the scheme of graded badges was discarded, and a single badge was awarded to all who completed the Outward Bound course without discredit. Although overall success was measured by the mere completion of the course, the emphasis on establishing individual goals remained.

The particular challenging situations encountered in an Outward Bound course served merely to create a stressful experience: the participant's response to these challenges was considered to be the important aspect of the experience. The claim was made that by living up to the motto of "to serve, to strive, and not to yield," the participant "discovers himself and something of his potentialities,

and that the deep satisfaction that comes of succesful achievement is not so much the outcome of winning against the rock face or the sea as in winning against himself" (Mackintosh 1957, p. 169). Thus Hahn's educational philosophy, with its emphasis on character training, became firmly embedded in the basic concepts of the Outward Bound program.

Recent history of Outward Bound. The short-term school had been founded so that many young men could benefit from Hahn's approach; it followed naturally that expansion of the program would allow even more participation. The original Outward Bound Sea School was established in 1941; in 1950 a second school was opened with mountain-based activities at Eksdale. During the following years other Outward Bound Schools appeared: at Moray in 1952; Ullswater in 1956; at Devon in 1959; and at Rhowniar in 1963. But the development of Outward Bound was not restricted to England. Already in 1951 an Outward Bound School had opened in Nigeria. Other schools were established in Kenya, Malaysia, Rhodesia, Zambia, Australia, New Zealand, Hong Kong, Holland, and Canada; three schools were opened in Germany.

In the United States, rapid development of Hahn's concept began when an Outward Bound School was established in Colorado in 1962. Additional schools were opened in Maine, Minnesota, Oregon, North Carolina, and Texas; an Outward Bound Center began working in conjunction with Dartmouth College. Each school has adapted its program to its own specific geographical location. According to a British observer, the British Outward Bound Schools are closely controlled by the Outward Bound Trust; the governing body of the

American schools, Outward Bound, Inc., exerts less control and thus allows more variation between the individual schools (Fletcher 1971). Each school is responsible, however, to abide by the basic concepts of Outward Bound and operate as a nonprofit educational institution.

As a result of the decentralization in the American system, the trend has been to eliminate the necessity for permanent school buildings by running mobile courses. With this approach, students are organized into patrols of 9-12 people; patrols then move through the wilderness, ranging as far as 100 miles from the starting point. The advantages cited for this approach include: (1) greater group identity and cohesion; (2) greater involvement of the instructor with patrol members; (3) challenges that are more realistic and less contrived; and (4) flexibility, variety, and freedom in the structure and activities of each course (Fletcher 1971). However, the mobile course is more susceptible to persistent bad weather, places much responsibility and strain on individual instructors, and creates difficulties in coping with minor casualties. In general, the American Outward Bound courses are based upon their British predecessors. Education through the wilderness is achieved by a series of land and sea expeditions. Stressful experiences, such as mountain climbing, are included throughout the course; a final expedition is planned and executed by the students themselves. The American schools, however, have particularly emphasized the "solo" experience. The solo is a one day walking, climbing, and camping experience for the British; for the Americans it is a three day solitary exercise in

survival and introspection, and is considered to be a highlight of the course (Fletcher 1971).

Modern applications of Outward Bound. Both British and American Outward Bound Schools have broadened the application of the Outward Bound concept. In England, the first girls' course was held in 1951; for a number of years girls' courses were held only when facilities could be arranged to accommodate them. These courses were evaluated as highly successful: the response of the girls to the demanding circumstances of the course established that "at the adolescent stage the greater physical maturity, sensitivity, and physical coordination of the girls gave them in certain circumstances a considerable advantage over the majority of boys of the same age" (Hogan 1968, p. 91). When Devon was established in 1959 it was designated as partially for girls' courses; in 1963 the Rhowniar school was founded solely for use by girls. In the United States, the first girls' course took place at the Minnesota Outward Bound School in 1965 (Caesar 1966). Again, the girls demonstrated that the outdoor experience that Outward Bound provided did not create instant outdoorswoman, but the personal reactions of the participants strongly endorsed the course (LaFontaine 1966). The current trend in the structure of courses is towards coeducational or mixed courses. The first mixed course in England took place in 1969. American schools have run a number of coeducational courses, particularly for the college age level.

The original funding for the Outward Bound Seas School came through the shipping industry; close ties with industry have been maintained in the British Outward Bound system. Thomas (1957)

examined the parallels between industrial training and Outward Bound; foremost among these was the necessity for team work and cooperation which Outward Bound fostered in a microcosmic situation. Outward Bound has long been a part of management training in England, with industry sponsoring Outward Bound participation for many of their management trainees. This application is a more recent innovation in the United States. The direct involvement of industry in the American Outward Bound courses has taken various routes: (1) specially designed courses for individual businesses (Dotson 1970); (2) Manpower Challenge courses involving unemployed persons and business managers (Colorado Outward Bound School 1973); and (3) the integration of management trainees into standard courses (Business Week 1968). In England, industry is not the only organization that has utilized Outward Bound in its training programs: both the British Army and certain police forces have established training programs based on the Outward Bound concept (Hogan 1968). In the United States, the Outward Bound experience inspired the training program for the Peace Corps volunteers: the initial Peace Corps training sessions in Puerto Rico in 1963 were supervised by certain Outward Bound personnel from England (Hogan 1968).

Outward Bound has not relied solely upon wilderness experiences: in recent years, courses have been devised that confront participants with social problems to which they might otherwise never be exposed. In 1967, the first British "City Challenge" course was conducted in a large industrial city. Although community service work was especially emphasized, daily periods of judo, rock climbing, swimming or canoeing were also included (Fletcher 1971). Outward Bound has

worked closely with social services through these city-oriented courses: clients of certain social service projects have even participated as City Challenge students, thereby working with other Outward Bound students to help people with problems similar to their own (Henyo 1972).

The expansion of Outward Bound into the city is an extension of the educational philosophy upon which the concept has been built. Hahn never wished to monopolize his theories of character training through adventure; indeed, he constantly sought to involve more students in the program, and welcomed the adaptation of Outward Bound principles to particular situations. In England, this flexibility has led to European courses, mixed courses, extension courses for Outward Bound graduates, rover courses, special groups courses, sponsors courses, welfare courses, junior courses for 14-16 year olds, and seniors courses for those over 19 (Fletcher 1971). Although most participants are normal and healthy, provisions have been made for handicapped students: for example, the East African Outward Bound School took a patrol of totally blind climbers to the top of Mount Kilimanjaro (Fletcher 1971). American Outward Bound Schools have expanded to include special groups, river trips, business groups, and ecology courses. Standard courses, once restricted to a particular age bracket, are now generally open to anyone in good health over the age of 16. An educational thrust has been especially important in the American program: teachers' practica, often including graduate credit, offer educators both the personal experience of Outward Bound activities and a professional examination of the goals and philosophies

of this educational approach (Hawkes et al. 1969). Outward Bound has provided guidelines for the development of similar programs within the formal educational system (Medrick no date). A consulting service is run for organizations interested in establishing their own programs. As a result, over 200 American educational institutions have either used the Outward Bound program itself or have established their own programs based on its concept (Outward Bound, Inc. 1971).

The basic component of the Outward Bound program is still the short-term residential course involving a wilderness experience. Certainly variations in these basic programs exist. The permanently-based British course might be characterized by a greater emphasis on training and the inclusion of religious, cultural, and intellectual activities; while variations exist among the American schools, courses in the United States are characteristically more mobile, with little formal emphasis on religious or intellectual activities, but with a greater emphasis on the introspective solo experience (Fletcher 1971). Evaluation of the Outward Bound experience has traditionally come from a sampling of individual reactions (Lawrence 1963), personal case histories (Life 1964), or simple observations (Pickard 1968). Those that have concluded that the Outward Bound approach is valuable have gone on to theorize just why this particular educational approach is effective (Maynard 1969).

Critics of Outward Bound, including some former participants, have maintained that the contrived wilderness experiences have little carry-over value (Grossman 1967). Other criticisms have centered on the hazardous nature of certain experiences, since there

have been a few widely publicized fatalities in conjunction with the program (LaFontaine 1966; Colorado Outward Bound School 1971). Hahn recognized that the Outward Bound experience may not be suited for everyone; no educational approach, however, maintains 100% effectiveness (Grossman 1967). The stressful experiences incorporated into the program are acknowledged as hazardous: a thorough assessment of the risks involved must be made and all appropriate safety precautions must be applied (Hogan 1968). The few fatalities that have occurred must be analyzed in the larger context of the entire group serviced by the program. American Outward Bound Schools alone serve more than 5,000 students annually (Colorado Outward Bound School 1973). The modern Outward Bound program can be seen to have many applications; because of the scope of the program and the numbers it involves, Outward Bound may have far reaching ramifications. Actual research analyzing the program's effects, however, has been rather limited.

Related Studies Concerned With Outward Bound

A study of the effects of Outward Bound type training upon a group of disadvantaged inner-city youths was conducted by Schroder and Lee (1967). The specific program involved in this study was the Trenton, New Jersey, "Action Bound" experience. This program, based at Trenton Central High School, incorporated Outward Bound techniques through weekend field exercises (mountain climbing, canoeing, cycling, rescue training, community service) in addition to daily classes in the high school. Action Bound students also participated in rigorous week-long expeditions during winter and spring vacations. The subjects used in this study were 40 lower class non-achieving urban high school

students, all of whom were 16-18 year old males. A control group was matched with the Action Bound students on the bases of age, school year, intelligence, race, socioeconomic status, and academic progress. Schroder and Lee administered a battery of psychological tests to both groups at the beginning of the Action Bound program and again five to six months later. The specific domains evaluated included achievement orientation, peer relations, identity, and self-reassessment. The Action Bound students were found to have these significant attitudinal changes: (1) they perceived themselves as more active, stronger, generally more positive, and less alienated; (2) they viewed others more as individuals, saw teachers and peers more positively, and took a more positive attitude towards participation; and (3) they established generally more positive goals and demonstrated a more mature goal orientation. Thus Schroder and Lee revealed certain beneficial effects of an Outward Bound type program upon urban low-achieving youth.

Clifford and Clifford (1967) investigated the effects of the Outward Bound experience at the Colorado school upon 36 boys ranging in age from 16 to 21. The following tests were administered shortly after arrival at the school and just prior to departure following the course: the Self-Rating Scale adopted from Dickey; the Self-Description Scale, also based on Dickey's work; the Ideal Description Scale (the foregoing scale answered as the subject would like to be); and the Word Meaning Test, a semantic differential based upon Osgood's work. A Counselor Rating Scale was completed by a counselor for each participant.

In general, self concepts were initially found to be relatively positive; completion of the Outward Bound course demonstrated a tendency toward a greater degree of positive self-rating and self-description. However, the bulk of this positive change was accounted for by those boys with a relatively poorer initial self concept. Little change was found in the ideal self concept. As a result, the discrepancy between real and ideal self concepts became smaller as real self concepts became more positive. Changes were found to be general as related to the initial level of self concept.

A more complete study using the Outward Bound program was executed by Kelly and Baer (1968). This two-year study was conducted to determine if the Outward Bound experience was more effective in preventing recurring delinquent behavior than the traditional training school experience. The Colorado, Minnesota, and Hurricane Island Outward Bound Schools were used as experimental programs; the Lyman School for Boys and the Industrial School for Boys, both in Massachusetts, served as control training programs. Sixty delinquent boys were enrolled in Outward Bound; sixty matched boys remained in training schools.

The Jesness Inventory and a semantic differential designed to measure both real and ideal self concepts were administered before and after the Outward Bound experience. The post testing of personality factors revealed improved social attitudes. In the specific area of self concept, the "I am" concept (real self) significantly improved for the Outward Bound participants; the "I would like to be" concept (ideal self) also significantly improved for these subjects. Kelly and Baer found that subjects treated in

a routine matter had a higher recidivism (return to crime) rate: a 20% recidivism rate was found in the experimental group; 37% recidivism was found in the control training school group. As perhaps reflected in recidivism rates, Outward Bound appeared to have a positive effect upon the self concepts of delinquent youths.

Stimpson and Petersen (1970) structured a three week survival camping experience for eight male high school under-achievers. This experience included the following activities: (1) a 4-day basic hike (40 mi.); (2) a rest day; (3) a 4-day survival hike (20 mi. the first day); (4) an endurance march (25 mi.); (5) a ropes course; (6) a 3-day solo survival; (7) a 10 mile marathon race; (8) a final trek in small groups; and (9) a debriefing and steak dinner. Pre test-post test differences were evidenced in the Self-Other Rating Scale developed by Petersen. Significant increases toward a more positive concept took place for both real self concept and parental concepts.

An extensive follow-up study for the five boys' schools and one girls's school in England was conducted by Fletcher in 1970. Difficulties of a follow-up study were recognized to be that: (1) because the Outward Bound courses were short, it was hard to isolate changes as attributable to the courses alone; and (2) it was difficult to determine what time period should elapse before the follow-up study was made. Extensive research was completed concerning the actual training applied at the schools.

Fletcher's actual study involved 3,000 students and their sponsors; 87% of the sponsors and 78% of the students responded to the questionnaires. Results showed that 86% of the participants

reported changes in self-confidence; 67% thought these changes would last forever. In addition, 70% of the sponsors noticed the increased confidence of former participants. Of the students, 87% considered the course highly successful, 11.6% considered the course successful, and only 1.4% considered the course a failure. Thus Outward Bound seemed to have a persistent influence upon its former participants.

An evaluation of the effects of Outward Bound training upon Dartmouth College students and New Hampshire high school students was conducted by Schulze (1970). The students involved participated in courses run by the Dartmouth Outward Bound Center during winter and spring, 1970. Personal reactions to participation were obtained through taped interviews and questionnaires. Additional background information was received from the Outward Bound staff, parents, teachers, and administrators. The evaluation of this information by Schulze implied that: (1) mental and emotional stresses were perceived as more overwhelming and ultimately more valuable than physical stresses; (2) the diverse composition of patrols fostered respect and tolerance of others; (3) mutual dependence and trust was elicited by the survival situation; and (4) a sense of accomplishment and achievement, along with a feeling of personal worth, resulted from successfully meeting the challenges of the Outward Bound experience.

In conjuntion with graduate study in the field of guidance counseling, Lovett (1971) compared Outward Bound and non-Outward Bound students in terms of attitudes towards self and others through the completion of open-ended statements. The survey involved 78

junior and senior students at Woodward High School, Toledo, Ohio. Of the 39 Outward Bound students, 28 completed questionnaires; data were received from 21 of the 39 control students. Lovett's evaluation of the completed questionnaires revealed that students who participated in Outward Bound appeared to be more positively aware of self, more confident in decision making, and more confident in interactions with others than the control group of non-participants.

Schulze (1971) analyzed the impact of the Outward Bound concept upon twelve high schools. These high schools had worked with Outward Bound to establish programs within the schools that utilized Outward Bound techniques. In each school, whether private or public, urban or suburban, these programs were found to be catalysts that challenged the traditional norms of the school. Implementation of these programs initiated self-examinations of existing educational approaches. Specifically, the Outward Bound type experience improved teacher-student and student-student relations. In many cases, the self-examination that is a part of the Outward Bound concept was later reflected in new approaches to the school's curriculum.

It would appear that self concept may be positively affected by a survival camping experience as evidenced by the foregoing studies. These studies, however, dealt primarily with male subjects. Further research in this area would seem warranted.

CHAPTER III

PROCEDURES

The purpose of this study was to determine if participation in a physically and psychologically stressful situation such as the Outward Bound program had any effect upon the anxiety levels and self concepts of the participants. A summary of the procedures that were used in this study follows in this order: (1) subjects; (2) program; (3) test selection; (4) collection of data; and (5) analysis of data.

Subjects

The subjects of this study were the participants in course C-104, conducted by the Colorado Outward Bound School, May 7 to May 29, 1973. The study population consisted of all consenting participants in this coeducational course.

Data were initially collected on 50 subjects; six of these subjects had to be dropped because of incomplete data. Complete sets of data were analyzed for 38 subjects; partial data were analyzed for an additional six subjects. Of the 44 participants ultimately used in the study, 33 were males and 11 were females.

Program

This study was not concerned with the Outward Bound program itself, but instead examined this program's effect upon the self concepts and anxiety levels of the participants. The following description is of the program as structured and conducted by the

Colorado Outward Bound School; no modification of this program was made by the experimenter.

The Colorado Outward Bound School course C-104 consisted of 23 days of intensive wilderness experience. This particular course took place in the San Juan mountains of southwest Colorado, May 7-May 29, 1973. The course basically was comprised of a series of expeditions into natural areas. Students were divided into nine-person coeducational groups called patrols. Each instructor was responsible for the patrol assigned to him; the instructor worked closely with his patrol during both instructional and expedition phases of the course. Among the specific activities covered in course C-104 were: map and compass reading, orienteering, rock climbing, rappelling (including a 150 ft. rappel), snow climbing, work on skis and snowshoes, campcraft, a ropes course (a type of obstacle course), first aid, and mountain rescue involving the construction of litters and practice evacuations. Although basic instruction may have taken place in specific locations, many of these activities were then practiced during the actual backpacking expeditions. Other major activities were more clearly confined to specific designated segments of the course: such would be true of the peak climb, solo, and marathon run. The climb involved scaling the 14,017 ft. Wetterhorn Peak. In the solo, three days and nights were spent alone with a minimal amount of equipment. The marathon was a nine mile cross country endurance run.

The majority of the activities of course C-104 were typical of standard Colorado Outward Bound School courses. Because this course

was held in late spring, certain adaptations had to be made to compensate for adverse weather conditions. Snowstorms themselves impeded certain activities; the resulting six feet of soft snow found in the high country made other activities more difficult. Final expeditions are normally chosen and executed by the students themselves. Because of the snow conditions in course C-104, safety precautions were taken; final expedition routes were shorter than usual and groups were accompanied by instructors. Thus course C-104 included both scheduled stressful activities (rock climbing, etc.) and natural stressful conditions (snowstorms). Students were given blank journals and were encouraged to record their personal reactions and self perceptions throughout the course. However, these reactions were not included in the data analysis of this investigation.

Test Selection

Literature was reviewed to determine the types of personality tests available that measure anxiety and self concept. The State-Trait Anxiety Inventory (STAI) was chosen to measure anxiety; the Gough Adjective Check List (ACL) was selected to determine self concept.

Self concept. The instrument chosen to measure self concept was the Adjective Check List (ACL) developed by Gough and Heilburn in the early 1960's. This list of 300 adjectives may be evaluated through twenty-four experimental scales. A subject may check as many or as few adjectives as he wishes; scoring is adjusted to the total number checked. Among the major considerations in the selection

of this instrument were its brevity and ease of administration. In addition, the versatility of the ACL allows for the measurement of both real and ideal self concepts. The scales of particular interest to this study were: number of adjectives checked, defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, self-control, lability, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, heterosexuality, exhibition, autonomy, aggression, change, succorance, abasement and deference (see Appendix A for complete definitions).

Reliability of the ACL was tested by the authors through the test-retest of 100 men with a six month interval. Test-retest reliability phi coefficients were found to range from +.01-+.86 with a mean of +.54 and a standard deviation of .19 (Gough 1965). Although these reliability coefficients are not high, the low reliability may reflect particular personological dispositions at the time of testing.

Acquiescence (the tendency to agree) and social desirability (the tendency to endorse positive favorable items) were also investigated by the test authors. Acquiescence is controlled by assigning standard scores in four groups by considering the total number of adjectives checked. Social desirability was compared to the Edwards Social Desirability Scale and found to be generally lower (median was +.16) than the other self-descriptive instruments (Gough 1965).

Anxiety. In the late 1960's, Spielberger, Gorsuch, and Lushene developed the State-Trait Anxiety Inventory (STAI), a short test consisting of two sections of twenty questions each. One set of questions is directed to the measure of state anxiety; the second set is directed towards trait anxiety. Of major consideration in the selection of this instrument was its brevity. A second consideration was the dual measurement involved in the instrument: both situational specific state anxiety and the more generalized trait anxiety may be determined by test results. This is especially important because the state anxiety may be affected by individual personological dispositions; the trait anxiety scores will give a more basic anxiety reading, unaffected by the particular circumstances of the test day. This trend is reflected in the reliability coefficients found in a test-retest experiment where retesting was varied from one hour to 20 days to 104 days after initial testing. A-Trait scores were found to correlate from .73-.86; A-State scores correlated only from .16-.54, with a median of only .32 (Spielberger 1970). Such results would be expected, however, because of the situational value of the A-State. Both anxiety measures displayed high internal consistency, however: A-State was found to have an alpha coefficient from .83-.92 while the alpha coefficient for A-Trait ranged from .86-.92 (Spielberger 1970).

Validity measurements were made by administering the STAI to 977 undergraduate students at Florida State University. Subjects responded first as they normally feel, then repeated the test answering as they would feel just prior to an important final exam.

Results found the mean A-State score considerably higher under exam conditions (Spielberger 1970).

A more complete validity experiment was structured using 197 undergraduate students as subjects. The students were given the STAI under four conditions: (1) normal; (2) after ten minutes of relaxation training; (3) after ten minutes of an intelligence exam; and (4) after watching a short stressful movie. Both males and females reacted with the highest anxiety scores after the movie (male mean 50.03, female mean 60.94), then the exam (male mean 43.01, female mean 43.69), then the normal period (male mean 36.99, female mean 37.24), and with the least amount of anxiety after relaxation training (male mean 32.70, female mean 29.60) (Spielberger 1970).

Collection of Data

Tests were administered during sessions at the beginning and end of the Outward Bound course. The initial testing took place at 9:00 a.m. on May 9, 1973, at the Red Cloud Ranch in Lake City, Colorado. Activities preceding this testing session included an early morning walk and breakfast; activities scheduled immediately after testing included an orienteering course and a half-day walk. The second testing session took place in the same location at 7:00 p.m. on May 28, 1973, following the final expeditions.

All tests were administered by the course director, following instructions specified by the experimenter (see Appendix B for administration instructions, letters of introduction and test instructions). All course participants were given the tests at once; necessary time was allotted so that the students could proceed at their own speed.

Tests were administered in the following order: (1) STAI A-State; (2) STAI A-Trait; (3) ACL for real self; and (4) ACL for ideal self.

Analysis of Data

Self concept and anxiety were examined in the analysis of data. The previously determined scales of the ACL were used to delineate self concept. Ideal and real self concepts before course participation were compared to these concepts at the conclusion of the course. The discrepancies between real and ideal concepts were likewise compared before and after the course. Both state and trait anxiety were examined by analyzing the STAI scores of participants. Scores from the initial testing were compared to scores on the second test. The relationship between anxiety and self concept was also determined. In addition to pre- and posttest comparisons within the group, self concept and anxiety were compared between male and female participants.

Because of the ordinal nature of the measurements, data were analyzed using nonparametric statistical techniques. The Wilcoxon Matched-Pairs Signed-Ranks test was used to determine the direction and magnitude of differences between samples involving the same individual (Popham 1967). This test was also used to determine significant variations between the two difference scores arising from two related pairs (Siegel 1956). The Mann-Whitney U test was used for independent samples to determine whether or not the unmatched pairs belonged to the same population (Siegel 1956). This test was also used to compare the two difference scores of two unrelated pairs.

The degree of relationship between selected ordinally measured variables was determined by the Spearman Rank Order Correlation Coefficient test.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this investigation was to examine the effects of a physically and psychologically stressful experience such as Outward Bound; the particular variables under study were self concept and anxiety. The specific hypotheses tested included: (1) the effects of the Outward Bound experience upon self concept and anxiety would be the same for male and female participants; (2) the effects of the Outward Bound experience upon self concept would include two aspects: (a) real self concept would be altered following participation; and (b) the discrepancy between real and ideal self concepts would change following participation; (3) the effects of the Outward Bound experience upon anxiety would include two aspects: (a) state anxiety would change following participation; and (b) state and trait anxieties would be related to real self concepts.

Participants of Colorado Outward Bound School course C-104 were tested at the beginning and end of the 23 day experience. Real and ideal self concepts were measured by selected scales of the Gough Adjective Check List. The State-Trait Anxiety Inventory was used as an index of situationally specific state anxiety and the more generalized trait anxiety.

This chapter presents the analysis of that data by means of the Wilcoxon Matched-Pairs Signed-Ranks test, the Mann-Whitney U test, and the Spearman Rank Order Correlation Coefficient. The chapter

is divided into six parts: (1) biographical data of subjects; (2) real self concept; (3) ideal self concept; (4) discrepancies between real and ideal self concepts; (5) anxiety; and (6) relationships between self concept and anxiety.

Biographical Data of Subjects

The biographical data obtained from the subjects included only sex and age. Sex was used as a classification variable in the analysis of data. Age was used only as a rough index of the course participants. The ages of the participants ranged from 16-38 years. The mean age of the participants was 20.4 years; the median age was 19. The majority of participants were of the college age bracket (18-22 years).

Real Self Concept

Real self concept involves attitudes of approval and disapproval towards one's self (Jersild 1963). For the purposes of this study, real self concept was assessed by means of the Adjective Check List which was administered with the standard instructions (see Appendix B for these instructions). In the following discussion, both the differences between pre- and postreal self concepts and the differences between male and female real self concepts on pre- and posttests will be presented.

Differences between pre- and posttest real self concepts. Following the Outward Bound course participants ascribed significantly fewer unfavorable adjectives to themselves and found themselves less likely either to solicit sympathy or emotional support from others

(succorance) or to express feelings of inferiority through self-criticism (abasement). In addition the conclusion of the course brought a significant increase in the number of favorable adjectives checked as well as significantly higher perceptions of defensiveness, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and heterosexuality. See Table 1 for a statistical presentation of these results.

The hypothesis that theorized there would be a change in real self concept was supported by these findings. Since significant differences were found in 16 of the 23 ACL scales, it was surmised that the perceptions of self before Outward Bound participation differed from these perceptions after participation. Thus it appeared that changes in self concept were possible, supporting the theories of Combs and Snygg (1959), Sarason (1962), and Gergen (1971) regarding the flexibility of self perceptions. Research by Johnson (1954) and Meiser (1970) also found that self concept changes may take place after specified programs.

An examination of the individual scale differences revealed that the changes were generally towards what would be considered a more positive real self concept. Although three scales reflected significant pretest to posttest decreases, the interpretation of these scales indicated that these decreases (fewer unfavorable adjectives, lower succorance, and lower abasement) were towards the socially desirable end of the spectrum. Of the scales that significantly increased after participation, most were easily

TABLE 1

DIFFERENCES BETWEEN PRE- AND POSTTEST REAL SELF CONCEPTS FOR SELECTED ACL SCALES UTILIZING THE WILCOXON TEST (N=44)

ACL Scale	Z Score	Direction of Difference[a]
No. Ckd	0.2621	
Df	2.7342*	posttest
Fav	3.5948*	posttest
Unfav	3.3491*	pretest
S-Cfd	2.2806*	posttest
S-Cn	2.4944*	posttest
Lab	0.3897	
Per Adj	2.5814*	posttest
Ach	2.2223*	posttest
Dom	2.5916*	posttest
End	2.1318*	posttest
Ord	2.2465*	posttest
Int	3.5181*	posttest
Nur	2.8258*	posttest
Aff	1.9693*	posttest
Het	2.8738*	posttest
Exh	0.5945	
Aut	0.1555	
Agg	1.8730	
Cha	0.0558	
Suc	3.9393*	pretest
Aba	2.5966*	pretest
Def	0.4771	

*Significant at or beyond .05 level.

[a]Denotes test with higher score.

interpreted as changes towards a more positive self concept when they were considered according to their definitions. These changes were readily interpreted as the by-product of the successful completion of the stressful experience. The significant increase in the heterosexuality scale may have resulted simply from the coeducational nature of the course; the novel experience of living and w rking closely with the opposite sex may have accounted for the higher posttest score.

The results of this study relating to real self concept have been supported by other research. Clifford and Clifford (1967), Kelly and Baer (1968), Schulze (1970), and Fletcher (1970) all found more positive self perceptions among participants at the conclusion of the Outward Bound experience. Schroder and Lee (1967) and Stimpson and Petersen (1970) obtained similar results with programs that were based upon Outward Bound. Thus it appeared that real self concept was changed following the completion of a physically and psychologically stressful experience such as Outward Bound.

Differences between male and female real self concepts on pre- and posttests. Both before and after the course, males checked a significantly higher total number of adjectives than females in addition to obtaining higher achievement scores on both tests. Pretest results also showed males to be higher than females on the order ACL scale. Both preceding and following the experience, females appeared to seek novelty of experience and avoid routine (change) more than their male counterparts. See Table 2 for a statistical presentation of these data.

TABLE 2

DIFFERENCES BETWEEN MALE AND FEMALE REAL SELF CONCEPTS ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES UTILIZING THE MANN-WHITNEY U TEST (N=M-33, F-11)

ACL Scales	Pretest Z Score	Pretest Direction of Difference[a]	Posttest Z Score	Posttest Direction of Difference[a]
No. Ckd	3.2795*	males	3.4557*	males
Df	1.4771		1.3280	
Fav	1.6126		0.6911	
Unfav	0.7318		0.8131	
S-Cfd	0.0542		0.1355	
S-Cn	0.3252		1.4229	
Lab	0.2845		0.7724	
Per Adj	0.4743		0.6775	
Ach	2.5884*	males	2.4528*	males
Dom	1.3551		1.7888	
End	1.9108		1.5178	
Ord	1.9921*	males	1.0706	
Int	0.4607		0.2439	
Nur	0.2981		0.5556	
Aff	1.8430		1.2738	
Het	0.8808		0.9757	
Exh	0.0406		1.2196	
Aut	0.5420		0.0542	
Agg	0.7047		0.2845	
Cha	2.2496*	females	2.2902*	females
Suc	1.3958		1.4094	
Aba	1.4094		1.4771	
Def	0.2845		0.7995	

*Significant at or beyond .05 level.

[a]Denotes group scoring higher.

The total number of adjectives checked reflects certain personological dispositions; because this number may become a response set artifact for other scales, it is used to classify results into four categories (different for male and female) for the calculation of standard scores. The results indicating that males scored higher on this scale than females must therefore be interpreted with caution. In general, the higher scoring subject on this scale tends to be emotional, adventurous, wholesome, conservative, enthusiastic, unintelligent, frank, and helpful.

Other male and female differences in real self concept perceptions may reflect more easily perceived variations. The higher achievement scores for males indicated that they are more intelligent, hardworking, and more determined to do well than the females. This difference may reflect societal standards in which males, and not females, are expected to exhibit the desire to achieve. The higher pretest score for males on the order scale indicated that they are more sincere and dependable, but less spontaneous, than their female counterparts. This difference was not apparent on posttest scores, indicating that the experience of living and working together brought male and female self perceptions of order closer together. Females consistently scored higher on change, revealing that they were more likely to seek variety and novel situations. This may have indicated that female participants perceived Outward Bound as a more novel situation for them, particularly since the concept originally involved only male students and the majority of participants today are still males.

Although there were certain male-female variations, these differences were minimal; the real self perceptions of participants were more alike than different. This would support the hypothesis that there would be no differences in the effects of Outward Bound upon males and females: for real self concept, male and female test scores were similar. The few differences that surfaced might be attributed to the risk situation of Outward Bound. Cober (1972) found risk sport males to be more tough-minded, self-reliant, and realistic than risk sport females. Again, however, there were more similarities than dissimilarities between males and females.

Ideal Self Concept

The ideal self concept includes the attitudes and ideas that personify the individual one would like to be (Jersild 1963). For the purposes of this study, ideal self concept was measured by means of the Adjective Check List which was completed according to ideal instructions (see Appendix B for these instructions). The following analysis of data includes both the differences between pre- and post-ideal self concepts and differences between male and female ideal self concepts on pre and posttests.

Differences between pre- and posttest ideal self concepts. No significant differences were found between ideal self concepts before the course and those same concepts following the experience. Table 3 presents these findings statistically.

The congruence of ideal self concept measures would be expected because of the nature of the ideal self perceptions. Jersild (1963)

TABLE 3

DIFFERENCES BETWEEN PRE- AND POSTTEST IDEAL SELF CONCEPTS FOR SELECTED ACL SCALES UTILIZING THE WILCOXON TEST (N=44)

ACL Scales	Z Score	Direction of Difference[a]
No. Ckd	0.1099	
Df	0.9418	
Fav	0.0067	
Unfav	0.4899	
S-Cfd	0.5727	
S-Cn	0.3952	
Lab	0.5023	
Per Adj	0.3841	
Ach	0.3907	
Dom	1.2567	
End	0.6126	
Ord	0.0435	
Int	0.8483	
Nur	1.1247	
Aff	0.8392	
Het	1.6338	
Exh	1.1156	
Aut	0.8976	
Agg	0.1604	
Cha	1.7124	
Suc	0.1876	
Aba	0.1305	
Def	0.5302	

*Significant at or beyond .05 level.

[a]Denotes test with higher score.

related the ideal self concept to "what I would like to be." Horrocks (1972) maintained that an individual's value system formed the basis for this perception. Thus the nature of the ideal self concept would make it less susceptible to change. The results of this study concurred with the results of Clifford and Clifford's research (1967) in which little variation in ideal self concept was noted after participation in Outward Bound.

Differences between male and female ideal self concepts on pre- and posttests. The comparison of male and female ideal self concepts revealed that both before and after the course males checked more adjectives, checked more unfavorable adjectives, and scored higher in succorance and deference; males also scored higher in abasement during pretest measurements. Both preceding and following the experience, females ascribed more favorable adjectives to themselves and were more self-controlled, autonomous, and changable; pretest results also found females to score higher in defensiveness, self-confidence, personal adjustment, and dominance than the male participants. These results are presented statistically in Table 4.

Although there were no significant differences within the total group for pretest and posttest ideal self concepts, there did appear to be variations in ideal self perceptions between the sexes. The differences between male and female ideal self concepts decreased slightly after Outward Bound participation. However, after this experience males remained higher than females on number of unfavorable adjectives, succorance, and deference; lower males scores persisted for number of favorable adjectives, self-control, autonomy, and change.

TABLE 4

DIFFERENCES BETWEEN MALE AND FEMALE IDEAL SELF CONCEPTS ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES UTILIZING THE MANN-WHITNEY U TEST (N=M-33, F-11)

ACL Scales	Pretest Z Score	Pretest Direction of Difference[a]	Posttest Z Score	Posttest Direction of Difference[a]
No. Ckd	2.7645*	males	2.0327*	males
Df	2.0463*	females	0.5827	
Fav	2.7374*	females	2.3444*	females
Unfav	4.4450*	males	4.8922*	males
S-Cfd	2.1140*	females	1.6668	
S-Cn	3.1711*	females	2.5477*	females
Lab	1.8566		1.1519	
Per Adj	3.4457*	females	1.5178	
Ach	1.5991		0.8266	
Dom	2.4393*	females	1.5042	
End	0.4878		0.0677	
Ord	0.0000		0.0948	
Int	1.0299		0.7182	
Nur	0.2303		0.4065	
Aff	1.3958		0.6911	
Het	1.5720		0.3116	
Exh	0.8266		1.7753	
Aut	2.5884*	females	2.2496*	females
Agg	0.3794		0.2439	
Cha	3.1440*	females	2.7239*	females
Suc	3.3066*	males	2.0869*	males
Aba	3.4828*	males	1.3551	
Def	2.2496*	males	2.0463*	males

*Significant at or beyond the .05 level.

[a]Denotes group scoring higher.

Relatively little difference was revealed between male and female real self concepts. The general direction of the male ideal self concept placed it on a less positive plane when compared to the female ideal. This may indicate that males set ideals that were more attainable in relation to real self perceptions.

The differences between male and female ideal self concepts did not support the hypothesis that similar concepts would be found. This variation could perhaps be attributed to the nature of Outward Bound participants. According to traditional societal conceptions, males are expected to efficiently cope with physical and psychological stresses. Thus the Outward Bound experience may present no unusual expectations for male participants. Females have not traditionally been credited with such high tolerance for physical and psychological stress. The female participant therefore may have sat exceptionally high ideals, and may differ in this respect from the typical female that does not seek experiences such as Outward Bound. Although there were differences between male and female ideal self concepts, it must be remembered that there were also many similarities between these two groups.

Discrepancies Between Real and Ideal Self Concepts

For the purposes of this study, the discrepancies between real and ideal self concepts were measured through comparisons of Adjective Check Lists answered for real self and Adjective Check Lists completed for ideal self. In the following section, the analysis of these discrepancies is presented in three parts: (1) discrepancies between real and ideal self concepts on pre- and posttests; (2) comparison of

pre- and postreal-ideal discrepancies; and (3) differences between male and female real-ideal discrepancies on pre- and posttests.

Discrepancies between real and ideal self concepts on pre- and posttests. The comparison of real and ideal self concepts of participants prior to the Outward Bound experience demonstrated that their ideal self scored higher in defensiveness and number of favorable adjectives checked, was more self-confident, more self-controlled, and showed more personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and exhibition. This ideal self would however be characterized by fewer unfavorable adjectives and less autonomy, aggression, change, succorance, and abasement.

At the conclusion of the course, fewer differences between real and ideal self concept were noted: participants would ideally liked to have shown more self-control, personal adjustment, achievement, dominance, endurance, and order; they ideally desired to be characterized by fewer unfavorable adjectives and less succorance. See Table 5 for the statistical presentation of both pretest and posttest discrepancies between real and ideal self concepts.

An analysis of the direction of differences on individual scales demonstrated that the more socially desirable score was found in the ideal self concept rather than the real self concept. The exceptions to this trend can be interpreted by considering the scale's definition and the particular test involved. On the pretest, the ideal self concept received a higher score in exhibition: this may be interpreted according to the scale's definition as a desire for more poise and assurance. Tests taken before the Outward Bound course indicated

TABLE 5

DIFFERENCES BETWEEN REAL AND IDEAL SELF CONCEPTS ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES UTILIZING THE WILCOXON TEST (N=44)

ACL Scales	Pretest Z Score	Pretest Direction of Difference[a]	Posttest Z Score	Posttest Direction of Difference[a]
No. Ckd	0.7392		0.2137	
Df	2.7561*	ideal	0.6034	
Fav	3.1196*	ideal	1.6129	
Unfav	4.9500*	real	3.7334*	real
S-Cfd	3.6698*	ideal	1.7025	
S-Cn	3.3749*	ideal	3.5168*	ideal
Lab	0.2790		0.5581	
Per Adj	3.4472*	ideal	3.0982*	ideal
Ach	2.8184*	ideal	2.1842*	ideal
Dom	3.8097*	ideal	2.0467*	ideal
End	3.9324*	ideal	3.9069*	ideal
Ord	3.6003*	ideal	2.7626*	ideal
Int	3.1747*	ideal	0.0739	
Nur	3.7770*	ideal	1.4113	
Aff	2.6007*	ideal	1.8189	
Het	1.6955		1.2970	
Exh	2.4933*	ideal	0.9330	
Aut	2.0798*	real	1.7771	
Agg	2.2379*	real	1.7198	
Cha	2.7474*	real	1.8141	
Suc	4.1531*	real	2.9149*	real
Aba	2.6629*	real	1.0386	
Def	0.3965		0.5645	

*Significant at or beyond .05 level.

[a]Denotes test with higher score.

higher scores for real self concept on autonomy and change. These results may have reflected perceptions of the oncoming Outward Bound experience. Because they chose to take this unusual course, participants may have seen themselves as excessively assertive and self-willed (autonomy) or as especially different from the norm because of their participation in this unusual experience (change). These perceptions are not shown in posttest results. The remaining pretest differences, as well as all posttest differences, more clearly revealed an ideal self concept that incorporated the socially desirable dimensions of the significantly different scales.

Comparison of pre- and posttest real-ideal discrepancies. The discrepancies between real and ideal self concepts were found to be significantly smaller following the course for the following ACL scales: defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, dominance, intraception, nurturance, affiliation, aggression, succorance, and abasement. See Table 6 for the statistical presentation of these results.

The discrepancy between real and ideal selves can be interpreted as a measure of adjustment. Wylie (1961) maintained that when a level of aspired performance is set, self-accepting persons show a small positive discrepancy between performance level and goal; self-rejecting persons, on the other hand, set goals either that they could easily exceed or that they could never possibly reach. Lindgren (1966) agreed that successful therapy for the self-rejecting person would normally be reflected in a decreased gap between real

TABLE 6

COMPARISON OF PRE- AND POSTTEST REAL-IDEAL SELF CONCEPT DISCREPANCIES FOR SELECTED ACL SCALES UTILIZING THE WILCOXON TEST (N=44)

ACL Scales	Z Score	Direction of Difference[a]
No. Ckd	0.4176	
Df	3.0561*	posttest
Fav	3.1134*	posttest
Unfav	3.1884*	posttest
S-Cfd	2.2871*	posttest
S-Cn	1.6980	
Lab	0.1490	
Per Adj	2.1186*	posttest
Ach	1.7234	
Dom	2.6564*	posttest
End	1.5031	
Ord	1.8078	
Int	3.2863*	posttest
Nur	3.6829*	posttest
Aff	2.7633*	posttest
Het	0.6090	
Exh	1.5444	
Aut	0.7877	
Agg	1.9676*	posttest
Cha	1.3849	
Suc	3.5829*	posttest
Aba	2.2917*	posttest
Def	0.1806	

*Significant at or beyond .05 level.

[a]Denotes test with smaller real-ideal discrepancy.

and ideal self concepts. This view was supported by Hanlon (1954) who found that a congruence between real and ideal self concepts indicated a normally adjusted personality.

The results of this study supported the hypothesis that there would be changes in the discrepancies between real and ideal selves following Outward Bound participation. This hypothesis appeared to be tenable since 16 of the 23 ACL scales exhibited significantly different real-ideal discrepancies from pretest to posttest. All changes indicated smaller real-ideal discrepancies following the course. Similar results were found by Clifford and Clifford (1967) in their analysis of real-ideal discrepancies following participation in Outward Bound. Thus it appears that Outward Bound participants experienced a decrease in the discrepancy between real and ideal self concepts. According to the theory and research cited in the foregoing discussion, such an effect would be desirable.

Differences between male and female real-ideal discrepancies on pre- and posttests. The comparison of male and female real-ideal discrepancies before the Outward Bound course indicated that males had smaller discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, personal adjustment, achievement, dominance, endurance, order, affiliation, succorance, and abasement. At the conclusion of the course, males revealed significantly smaller real-ideal discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, achievement, dominance, exhibition, succorance, and abasement. Table 7 presents these data statistically.

TABLE 7

DIFFERENCES BETWEEN MALE AND FEMALE REAL-IDEAL SELF CONCEPT DISCREPANCIES ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES UTILIZING THE MANN-WHITNEY U TEST (N=M-33, F-11)

ACL Scales	Pretest Z Score	Pretest Direction of Difference[a]	Posttest Z Score	Posttest Direction of Difference[a]
No. Ckd	0.7589		0.7453	
Df	2.2631*	males	2.0327*	males
Fav	2.1954*	males	2.2902*	males
Unfav	2.5342*	males	2.1954*	males
S-Cfd	1.5042		1.4229	
S-Cn	1.9514		0.8808	
Lab	0.7589		0.9350	
Per Adj	2.3444*	males	1.2332	
Ach	3.3056*	males	2.9001*	males
Dom	2.2767*	males	2.6561	males
End	2.0192*	males	1.7210	
Ord	2.4393*	males	0.7047	
Int	1.3551		1.3416	
Nur	0.5014		1.2603	
Aff	2.7645*	males	1.8701	
Het	0.0135		1.4500	
Exh	0.3252		1.9921*	males
Aut	0.6775		1.8430	
Agg	1.2467		0.4878	
Cha	0.7589		0.0271	
Suc	3.2660*	males	2.8052*	males
Aba	2.7645*	males	2.3444*	males
Def	1.0841		1.8159	

*Significant at or beyond .05 level.

[a]Denotes group with smaller real-ideal discrepancy.

These results tend to refute the hypothesis that male and female scores would not differ. It appeared from these results that the ideal self more closely approximated the real self for male Outward Bound participants; this trend was found both in pretest and post-test data. The smaller real-ideal discrepancies that males revealed could indicate that they were better able to set realistic goals than their female counterparts. It should be noted, however, that fewer male-female variations were manifested at the conclusion of the course. In many respects, the male and female real-ideal discrepancies were more similar than dissimilar.

Anxiety

The anxiety index used in this study was the State-Trait Anxiety Inventory. This test measures both the transitory situationally specific state anxiety and the more generalized anxiety proneness of trait anxiety. The following discussion presents both the differences between pre- and poststate and trait anxieties and the differences between male and female state and trait anxieties on pre- and posttests.

Differences between pre- and posttest state and trait anxieties. Both state and trait anxiety scales were found to be significantly higher at the beginning of the Outward Bound experience. See Table 8 for the statistical presentation of these data.

The range of possible scores on both the state and trait anxiety scales runs from 20 to 80. For the Outward Bound participants in this study, pretest state anxiety scores varied from 20 to 62

TABLE 8

DIFFERENCES BETWEEN PRE- AND POSTTEST ANXIETY MEASURES FOR STAI SCALES UTILIZING THE WILCOXON TEST (N=38)

STAI Scale	Z Score	Direction of Difference[a]
State	4.7295*	pretest
Trait	3.9747*	pretest

*Significant at or beyond .05 level.

[a]Denotes test with higher score.

(mean = 38.64); posttest scores ranged from 20 to 46 (mean = 28.69). For trait anxiety prior to the course, scores varied between 23 and 60 (mean = 40.82); following the course scores ranged from 21 to 56 (mean = 35.15) (see Appendix C for raw scores on anxiety tests).

These results support the hypothesis that there would be significant differences in state anxiety before and after participation. Significant trait anxiety fluctuations were not expected. By definition, trait anxiety refers to anxiety proneness, a relatively stable index (Spielberger 1970). The results of this study would tend to dispute this definition since trait anxiety was inflated before course participation as compared to test results following the experience.

State anxiety is defined as a transitory emotional state that fluctuates in intensity over time (Spielberger 1970). The state anxiety level before the course was significantly higher than that

anxiety level at the conclusion of the experience. Although participants were in no physical danger during the initial testing session, the high state anxiety level they exhibited could imply that they perceived the oncoming experience as stressful or threatening. Grinker (1966), Levitt (1967), and Spielberger (1972) have all theorized that a situation perceived as stressful will elicit high anxiety reactions; the determining aspect is the individual's perception of stress and not the presence or absence of actual danger. Although the perception of stress is reflected in high anxiety scores, the nature of this perceived threat may vary between individuals. For example, Basowitz (1955) demonstrated that even in imminent risk activities, fear of failure may supercede the perception of danger in eliciting anxiety. Fenz and Epstein (1969) found that the status of an individual as an experienced or novice participant can also alter the impending activity's effect upon anxiety. Although it cannot be determine whether the physical risks of the Outward Bound experience or the fear of failure was the factor perceived as threatening, the high anxiety scores before the course indicated that participants perceived the oncoming Outward Bound experience as threatening or stressful.

Differences between male and female state and trait anxieties on pre- and posttests. No significant differences were found between males and females on either pretest or posttest state and trait anxieties. Table 9 presents these results statistically. The hypothesis that male and female scores would not differ is supported by these results.

TABLE 9

DIFFERENCES BETWEEN MALE AND FEMALE ANXIETY MEASURES ON PRE- AND POSTTESTS FOR STAI SCALES UTILIZING THE MANN-WHITNEY U TEST (N=M-29, F-9)

STAI Scale	Pretest Z Score	Pretest Direction of Difference[a]	Posttest Z Score	Posttest Direction of Difference[a]
State	0.7558		0.5427	
Trait	1.3508		1.4613	

*Significant at or beyond .05 level.

[a]Denotes group with higher score.

A similarity between male and female anxiety reactions has not always been revealed. Hodges and Felling (1970) found that females were more apprehensive than males in situations involving physical danger or pain. If the physical stresses of Outward Bound were to be construed as somewhat dangerous or painful, the results of this study would disagree with the Hodges and Felling research. It must be remembered, however, that the female Outward Bound participants voluntarily engaged in this experience; the female participants may either be less anxious than typical females regarding physical danger, or they may not have perceived the Outward Bound experience as dangerous or threatening.

Thus anxiety appeared to function similarly for both male and female Outward Bound participants. Perhaps this relates to

anxiety's original function as warning system as outlined by Freud (1933). In this capacity, anxiety is a valuable asset to the organism, as Roubicek (1969) maintained; this value did not differentiate between the sexes in this study.

Relationships Between Self Concept and Anxiety

Sarason (1962) asserted that there is an inverse relationship between self concept and anxiety: a positive opinion of one's self is accompanied by a low level of anxiety. In this study, the correlation between real self concept and state and trait anxiety was investigated to determine whether or not such a relationship existed in these results. In addition, the relationship between ideal self concept and anxiety was determined. These relationships are discussed in the following paragraphs.

Relationships between real self concept and state and trait anxieties on pre- and posttests. For real self concept and state anxiety, comparisons prior to the course revealed negative correlations between pretest state anxiety and the personal adjustment and intraception scales; positive correlations were found for succorance and abasement. Comparisons following the course between real self concept and state anxiety indicated negative correlations were found for a number of unfavorable adjectives checked, succorance, and abasement.

For trait anxiety and real self concept comparisons, negative correlations were found on both pretest and posttest for the scales

of defensiveness, personal adjustment, achievement, dominance, endurance, order, and intraception; common pretest and posttest positive correlations were found for number of unfavorable adjectives checked, succorance, and abasement. In addition, the posttest trait anxiety was negatively correlated with number of favorable adjectives checked, self-confidence, nurturance, and affiliation; it was positively correlated with deference as well. See Table 10 for the statistical representation of both state and trait correlations with real self concept.

These results partially support the hypothesis that anxiety and self concept would correlate significantly. Fewer relationships were found between state anxiety and real self concept than between trait anxiety and real self perceptions. The greatest number of correlations was shown in posttest trait anxiety, with 15 of the 23 ACL scales revealing significant relationships with that anxiety index. The directions of the correlations follows a logical pattern: those ACL scales in which a high score indicates a socially desirable end are negatively related to anxiety; those ACL scales in which a high score is undesirable are positively correlated with anxiety.

The general trend for the positive real self concept to be accompanied by a low level of anxiety is supported by Sarason (1962) who maintained that optimal adjustment was characterized by the positive self perception and low anxiety combination. The poorly adjusted person would experience higher anxiety levels as a result of the incongruencies between the perception of self and the total experience of the individual (Sarason 1962). Levitt (1967) agreed

TABLE 10

RELATIONSHIPS BETWEEN REAL SELF CONCEPT AND ANXIETY MEASURES ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES AND STAI SCALES UTILIZING THE SPEARMAN TEST (N=38)

ACL Scales	Pretest Correlation State	Pretest Correlation Trait	Posttest Correlation State	Posttest Correlation Trait
No. Ckd	-.2099	.0598	-.0395	-.2664
Df	-.0215	-.3158*	-.2548	-.4599*
Fav	-.1892	-.2570	-.2135	-.3215*
Unfav	.1879	.3759*	.3357*	.5558*
S-Cfd	-.1144	-.2395	-.3491*	-.3744*
S-Cn	-.0682	-.0245	-.0817	-.1579
Lab	.1270	.1390	-.2090	-.0225
Per Adj	-.4260*	-.5324*	-.1265	-.3569*
Ach	-.1279	-.3655*	-.3455*	-.4252*
Dom	-.1848	-.4480*	-.4835*	-.5270*
End	-.1898	-.3916*	-.1535	-.3005*
Ord	-.2291	-.3733*	-.1203	-.3022*
Int	-.3197*	-.3014*	-.2622	-.4273*
Nur	.1512	-.0175	-.1406	-.3654*
Aff	-.1178	-.1775	-.2636	-.4352*
Het	.1357	.0523	-.0887	-.1700
Exh	.0841	-.0597	-.1548	-.0842
Aut	-.2072	-.0640	-.2146	-.0860
Agg	.0226	-.0777	-.0435	.2409
Cha	-.0148	.0590	-.2002	-.0555
Suc	.3263*	.5539*	.3293*	.5214*
Aba	.4023*	.5492*	.4859*	.4093*
Def	.1982	.2252	.2334	.2965*

*$\pm$.29 needed for level of significance at or beyond .05.

that low self esteem may be an important cause of anxiety proneness; this would be especially true when a low self esteem is accompanied by a high ideal self concept, resulting in a large real-ideal discrepancy. Hodges and Felling (1970) found a correlation between trait anxiety and three ego-involving situations, indicating that anxiety and self concept may be related.

In conjunction with the Outward Bound experience, the greatest relationship appeared to be between the posttest trait anxiety, which was the lower trait level, the posttest real self concept which was the more positive self concept measure. Although the results are not clearly defined, there appeared to be a relationship between the anxiety levels and real self concepts recorded before and after Outward Bound.

Relationships between ideal self concept and state and trait anxieties on pre- and posttests. Only a few relationships were found between anxiety measures and ideal self concept: pretest trait anxiety positively correlated with exhibition; posttest state anxiety positively correlated with succorance; and posttest trait anxiety positively correlated with exhibition and negatively correlated with deference. See Table 11 for the statistical presentation of this data.

There did not appear to be any significant relationship between ideal self concept and anxiety in general. Previous results, however, did show a relationship between real self concept and anxiety. At first inspection, these sets of results may appear contradictory. However, the finding that the ideal self concept was not related

TABLE 11

RELATIONSHIPS BETWEEN IDEAL SELF CONCEPT AND ANXIETY MEASURES ON PRE- AND POSTTESTS FOR SELECTED ACL SCALES AND STAI SCALES UTILIZING THE SPEARMAN TEST (N=38)

ACL Scales	Pretest Correlation State	Pretest Correlation Trait	Posttest Correlation State	Posttest Correlation Trait
No. Ckd	.0769	.2570	-.1696	-.1516
Df	.1434	.1393	-.1752	-.0835
Fav	.1790	.2040	-.1929	-.0529
Unfav	-.0246	.0304	.1367	-.0065
S-Cfd	.1379	.2897	-.0923	.1505
S-Cn	.0013	.0436	-.0861	.0131
Lab	.0450	.1723	-.0154	.2787
Per Adj	-.0183	.2074	-.0828	-.0141
Ach	-.0846	.0617	.1324	.0501
Dom	.0302	.1228	-.1969	.0777
End	.0591	.0995	-.1510	-.1075
Ord	.0316	.1313	-.1299	-.0970
Int	-.1369	.0738	-.1530	-.0537
Nur	.0236	.0892	-.2625	-.2552
Aff	.0510	.1805	-.1829	-.0500
Het	.1644	.2420	-.0049	.0754
Exh	.0977	.2975*	.2140	.4675*
Aut	.0709	.2797	-.1122	.2725
Agg	.0145	-.1496	.1797	.2785
Cha	.1417	.2770	.0598	.2307
Suc	-.1093	-.1374	.3101*	.0737
Aba	-.1769	-.0294	.2216	-.0165
Def	-.0288	.0058	-.0466	-.3497*

*$\pm$.29 needed for level of significance at or beyond .05.

to anxiety can be readily explained by examining the nature of ideal self perceptions.

Unlike real self concept, ideal self concept is generalized to include aspirations and hopes as well as planned fulfillments (Jersild 1963). Horrocks (1969) also maintained that an individual's value system may form the basis for ideal self concept. As a result, the ideal self perception appears to be more resistant to change than real self concept. Clifford and Clifford (1967) found ideal self concept to remain constant following Outward Bound participation; the foregoing data in this study on pretest and posttest ideal self concepts support the consistency of the ideal self. Because of this relatively enduring nature, ideal self concept perhaps resists the influences of fluctuations in anxiety.

CHAPTER V

SUMMARY, FINDINGS, AND CONCLUSIONS

The purpose of this study was to determine if participation in a physically and psychologically stressful experience had any effect upon anxiety and self concept; specifically, this study examined the effects of the Outward Bound experience upon the anxiety levels and self concepts of male and female participants. The hypotheses tested in this study related to these effects. Does the Outward Bound experience alter the self concepts and anxiety levels of participants? The specific hypotheses under investigation were the following: (1) the effects of the Outward Bound experience upon self concept and anxiety would be the same for male and female participants; (2) the effects of the Outward Bound experience upon self concept would include two aspects: (a) real self concept would be altered following participation; and (b) the discrepancy between real and ideal self concepts would change following participation; (3) the effects of the Outward Bound experience upon anxiety would include two aspects: (a) state anxiety would change following participation; and (b) state and trait anxieties would be related to real self concepts.

Summary of Procedures

Male (N=33) and female (N=11) participants enrolled in a Colorado Outward Bound School course were measured for self concept and anxiety at the beginning and at the conclusion of the 23 day program. The

Gough Adjective Check List was used to evaluate real and ideal self concepts; the State-Trait Anxiety Inventory served as an index of both situationally specific and generalized anxiety levels. The statistical methods used in the analysis of data include the Wilcoxon Matched-Pairs Signed-Ranks test, the Mann-Whitney U test, and the Spearman Rank Order Correlation Coefficient test.

Summary of Findings

The analysis of the data obtained from test administrations at the beginning and at the conclusion of the Outward Bound course revealed the following findings:

1. Following the Outward Bound course participants ascribed significantly fewer unfavorable adjectives to their real selves and found themselves less likely either to solicit sympathy from others (succorance) or to express feelings of inferiority through self-criticism (abasement). In addition the conclusion of the course brought a significant increase in the number of favorable adjectives checked, defensiveness, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation and heterosexuality.

2. On both the pre- and postreal self concept tests, males checked a significantly higher total number of adjectives than females in addition to obtaining higher achievement scores on both tests. Pretest results also showed males to be significantly higher than females in order. On both pre- and posttests, females scored higher in change.

3. No significant differences were found between pre- and post-ideal self concepts.

4. The comparison of male and female ideal self concepts revealed that on both pretests and posttests males checked more adjectives, checked more unfavorable adjectives, and scored higher in succorance and deference; males also scored higher in abasement during pretest measurements. Both before and after the course, females ascribed more favorable adjectives to themselves and were more self-controlled, autonomous, and changable; pretest results also found females to score higher in defensiveness, self-confidence, personal adjustment, and dominance than the male participants.

5. The comparison of real and ideal self concepts on the pre-test revealed higher ideal self scores in defensiveness, number of favorable adjectives checked, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and exhibition. The ideal self scored lower than the real self in number of unfavorable adjectives checked, autonomy, aggression, change, succorance, and abasement. The comparison of real and ideal self concepts on the posttest indicated higher ideal self scores for self-control, personal adjustment, achievement, dominance, endurance, and order; the ideal self scored lower in number of unfavorable adjectives checked and succorance.

6. The discrepancies between real and ideal self concepts were found to be significantly smaller on the posttest for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, dominance.

intraception, nurturance, affiliation, aggression, succorance, and abasement.

7. The comparison of male and female real-ideal discrepancies on the pretest indicated that males had smaller discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, personal adjustment, achievement, dominance, endurance, order, affiliation, succorance, and abasement. On the posttest, males revealed significantly smaller real-ideal discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, achievement, dominance, exhibition, succorance, and abasement.

8. Both state and trait anxiety scores were significantly higher on the pretest than on the posttest.

9. No significant differences were found between males and females on either pretest or posttest state and trait anxiety.

10. For real self concept and state anxiety, pretest comparison revealed negative correlations between pretest state anxiety and the personal adjustment and intraception scales; positive correlations were found for succorance and abasement. Posttest comparisons between real self concept and state anxiety indicated negative correlations with self-confidence, achievement, and dominance; positive correlations were found for number of unfavorable adjectives checked, succorance, and abasement. For trait anxiety and real self concept comparisons, negative correlations were found on both pretest and posttest for the scales of defensiveness, personal adjustment, achievement, dominance, endurance, order, and intraception; common pretest and posttest positive correlations were found for

number of unfavorable adjectives checked, succorance, and abasement. In addition, the posttest trait anxiety was negatively correlated with number of favorable adjectives checked, self-confidence, nurturance, and affiliation; it was positively correlated with deference as well.

11. The correlation of ideal self concept with state and trait anxiety measures revealed the following relationships: pretest trait anxiety was positively correlated with exhibition; posttest state anxiety was positively correlated with succorance; and posttest trait anxiety was positively related to exhibition and negatively related to deference.

Conclusions

The following conclusions were made on the basis of the foregoing findings and are specific to this study in which a coeducational Colorado Outward Bound School course provided a physically and psychologically stressful experience. In light of the hypotheses under investigation, these conclusions were reached:

1. Female Outward Bound participants set higher ideals for themselves than do the males in this program. As compared to the females, the males' perceptions of what they are more closely approach what they would like to be. In general, however, male and female Outward Bound participants are more similar than dissimilar in respect to anxiety and self concept.

2. In relation to self concepts, Outward Bound participants experience the following changes at the conclusion of the course:

a. they view themselves more positively; and

b. their perceptions of what they are more closely approach what they would like to be.

3. In relation to anxiety, Outward Bound participants exhibit the following:

a. they experience a high anxiety level just prior to the course, indicating that they perceive the oncoming program as either physically or psychologically stressful or threatening; and

b. those participants with positive perceptions of themselves are also characterized by low levels of anxiety. Thus the Outward Bound experience does alter the self concepts and anxiety levels of participants.

Implications of This Study

Although there were a few differences in self concepts of male and female Outward Bound participants, these variations were outweighed by similarities. Indeed, both sexes perceived the Outward Bound experience as stressful; both males and females regarded themselves more positively and saw themselves to be closer to their ideal selves at the conclusion of the experience. The implications of these effects can be determined through an examination of the basic nature of the Outward Bound experience.

There are no individual "winners" and "losers" in Outward Bound. Each person who completes the course is awarded a certificate and a pin. Within the course, success is not measured by a set standard; it is evaluated on an individual basis. The achievements of an individual, no matter how small they may appear on the surface, are recognized by the instructor and other patrol members and are

positively reinforced. The interpersonal relationships that develop through this mutual support are an important aspect of the course. Because the instructor works so closely with his patrol, he naturally affects the tone of the group. Because of the small group structure of the course, the composition of a patrol may also influence the nature of the experience. Outward Bound patrols are probably best characterized by their diversity: in addition to the sex differences of the coeducational courses, members vary in age, educational background, socioeconomic status, outdoor experience, and geographical origin. The basic activities of the course, along with special group initiative tasks, maximize the development of both cooperation and leadership. Members of the group therefore learn to support and help each other. These exercises in cooperation and leadership culminate in the final expeditions which participants execute in small groups without the aid of instructors.

The experience of living and working closely together with a group of strangers is new to many Outward Bound participants. Perhaps for the first time, these participants are judged by their peers for what they are and not for their reputation or status. In addition, the course activities themselves are a novel experience for the majority of the participants. Rappelling, rock climbing, intensive backpacking, the peak ascent, the marathon, and the solo are new to these persons. The new people and novel experiences that the individual participant encounters are not set in the context of overwhelming competition. The Outward Bound philosophy emphasizes meeting individual goals and achieving excellence within one's own

capabilities. This approach is summarized in the Outward Bound motto of "to serve, to strive, and not to yield." The effectiveness of this experience is evidenced by the results of this study.

Outward Bound was an outgrowth of Hahn's educational philosophy; it remains an educational experience. Implications may be drawn from the Outward Bound program and applied to the more traditional, formalized education institutions. In Outward Bound, achievements are recognized at all levels of competency; in the traditional classroom, too often only the "best" in the class are rewarded for their efforts. Outward Bound is programmed so that all participants may experience success by overcoming what are perceived to be great obstacles. Through the guidance and encouragement of the instructors and other participants, individuals accomplish more than they thought was possible. In the traditional educational experience, the opposite often appears to be the case; only a few students experience success on a standardized academic scale. The remaining students are regarded as mediocre or even as failures by their teachers and by themselves. Many students have become disillusioned with traditional formal education. As evidenced by this study, Outward Bound participants feel better about themselves following their experience. Each individual who completes the Outward Bound course knows he has successfully met a challenge.

These implications are especially pertinent to physical education. Like Outward Bound, physical education includes physical and psychological stresses. For traditional physical education, these stresses are usually placed within the context of athletic competition which

determines winners and losers. Although all participants may have performed well, often only the winners are recognized for their achievements. Within physical education classes, this approach immediately programs the highly skilled students for success and the poorly skilled students for failure. Little recognition is given for achievements other than being the best athlete in the class.

It is possible for physical educators to avoid this emphasis upon the comparative evaluation of students. In this approach, mastering new skills must be viewed as an individualized learning experience. Because the task that comes easily to one student may bring frustration and failure for another, skill acquisition cannot be measured by a single standard for an entire class. In the physical education experience each student must be presented with tasks that are challenging but do not exceed his capabilities. Achievement must be defined as the successful completion of these individualized tasks. This approach could facilitate the learning process; nevertheless, many physical education programs continue to evaluate success comparatively through athletic competition.

Because the value of winning is so enmeshed in these traditional sport experiences, stress seeking and risk taking activities may provide a means through which physical education can alter its emphasis upon competition. Mountain climbing, sky diving, SCUBA diving and the like are not structured around the norms of winning and losing. Implementation of these activities within the realm of physical education may offer an opportunity for educators to examine a program based upon individual achievement. Perhaps such a

direction comes naturally to physical education. As Longland (1957) maintained:

> . . . physical education began, only a short while ago, as a drill which took place in the school yard, and which consisted of a series of exercises of doubtful body-building virtue quite unrelated to the rest of life both in the school and in the outside world. Since then physical education has gradually climbed out of its swaddling clothes. Team-games, suitably adapted for small children as well as older ones, have run parallel with athletic training and competitions. But physical education is only beginning to escape from the asphalt square, the gymnasium and the playing field. It is here that Outward Bound training can demonstrate the next logical and inevitable expansion of the concept of the proper education of the body. In doing this it will ally itself with the most imaginative and resourceful of the teachers of physical education, who are already breaking their earlier bonds (Longland 1957, p. 183).

Outward Bound may help physical education to reevaluate its approach to the question of success and failure. Additional research into the effects of participation in physically and psychologically stressful situations will help determine the new directions that physical education may take.

Recommendations for Further Study

The results of this study do give some insight into the effects of the physically and psychologically stressful Outward Bound program; many questions related to this area, however, remain unanswered. The following recommendations for further study are proposed for future investigations.

1. Within the context of the Outward Bound program, additional studies might be conducted that include more subjects and exhibit more rigorous control. Of particular value in the execution of such studies might be the implementation of observational techniques of

data collection; such an approach would be essential for the experimenter with no previous personal contact with the program.

2. Because of the diverse backgrounds of the Outward Bound participants, variables other than sex alone could be related to self concept changes. The effects of participation could be correlated with age, educational background, outdoor experience, and socio-economic status.

3. The effects of participation could be related to the expectations of Outward Bound participants. Self concept changes may differ between those students who participated out of personal desire and those who enrolled because of parental or school pressure. Additional comparisons could be made between those students on scholarships and those who paid their own way.

4. Although the attrition rate is quite low, a comparison could be made between those completing the course and those who dropped out of the course because of illness, injury, or personal disillusionment with the program.

5. Among those completing the experience, a comparison could be made between successful and unsuccessful participants. Classification into these categories could be made by the students' perceptions of their own performances, the instructors' evaluations of their patrols, or by independent observation.

6. The use of anxiety tests as an index of perceived stress might be differentially related to self concept changes. High anxiety subjects that perceive the experience as more stressful could

be compared to low anxiety subjects in relation to the magnitude of self concept changes.

7. Additional research could be done involving courses for girls only as compared to courses for boys only.

8. This study examined self concept changes immediately following the Outward Bound experience; the question remains as to the durability of these self perceptions. A follow-up study could be conducted to determine whether or not changes attributed to Outward Bound have a lasting influence.

9. The effects of different types of courses could be examined. "City Challenge" courses might be compared to standard courses, for example.

10. A comparison of British and American schools, or a cross-cultural analysis of the effects of many Outward Bound programs might be made.

11. Within the United States, the Outward Bound Schools incorporate diverse geographical locations into their activities; a comparison of these American schools might reveal differences in effectiveness.

12. An examination of individual components of the program might be made to establish whether or not the rock climbing, the 150 ft. rappel, the peak climb, the backpacking, or the solo would be of value when executed outside the context of the entire program.

13. An analysis of the personality characteristics of the Outward Bound participants might be made. These results could be compared to

established norms and to the personality profiles of stress seekers and risk takers.

14. A sociological analysis of the Outward Bound experience could be conducted. Peer relationships and leadership tendencies might be examined in this context.

15. The effects of the residential Outward Bound experience could be compared to the effects of programs modeled on Outward Bound and conducted within the realm of physical education.

Since its founding in 1941, the Outward Bound program has expanded considerably, both in the number of participants it can accommodate all over the world and in the types of courses it has to offer. In the context of modern societies equipped with multitudinous work-saving devices, the voluntary pursuit of a physically and psychologically stressful experience appears to be an anachronism. To date, studies in this area have only begun to analyze the motivations behind and the effects of participation in stressful activities. The implications of programs such as Outward Bound can only be defined by further research.

BIBLIOGRAPHY

Allport, Gordon W. 1961. Pattern and Growth in Personality. Rev. ed. New York: Holt, Rinehart, and Winston.

Basowitz, Harold, Persky, Harold, Korchin, Sheldon J., and Grinker, Roy R. 1955. Anxiety and Stress. New York: McGraw-Hill Book Co.

Bernard, Jesse, 1968. The Eudaemonists. In Why Man Takes Chances, ed. Samuel Z. Klausner, pp. 3-47. New York: Doubleday and Co.

Bernstein, Arthur. 1972. Wilderness as a Therapeutic Behavior Setting. Therapeutic Recreation Journal 6(4):160-161.

Business Week. 1968. Pitting Managers Against Nature. 16 March, pp. 106-114.

Caesar, Gene. 1966. Outward Bound. Seventeen 25(7):93.

Cain, Leila S. 1971. Stress in Visualized Threatening Situations. Paper read at Eastern Psychological Association Annual Meeting, 15-17 April, in New York, New York.

Carlson, Gerald, and Wignall, Dennis. 1972. To Appreciate Mountain Environment. Journal of Health, Physical Education, and Recreation 43(8):19.

Carron, Albert V. 1968. Motor Performance Under Stress. Research Quarterly 39(3):463-469.

Clifford, Edward, and Clifford, Miriam. 1967. Self-concepts before and after Survival Training. British Journal of Social and Clinical Psychology 6(4):241-248.

Cober, Linda Jane. 1972. A Personality Factor Study of Participants in High Risk Sports. Unpublished Master's thesis, The Pennsylvania State University.

Colorado Outward Bound School. 1971. Fall Newsletter. Denver: Colorado Outward Bound School.

_____. 1973. Colorado Outward Bound School Brochure. Denver: Colorado Outward Bound School.

Combs, Arthur W. and Snygg, Donald. 1959. Individual Behavior. Rev. ed. New York: Harper and Row.

Coopersmith, Stanley. 1967. The Antecedents of Self-Esteem. San Francisco: W.H. Freeman and Co.

Dotson, J.L. 1970. Executives: The Way to the Top. Newsweek 27 April 75:80.

Fenz, Walter D. and Epstein, Seymour. 1969. Stress: In the Air. Psychology Today 3(4):27-28.

Fletcher, Basil A. 1970. Students of Outward Bound Schools in Great Britain: A Follow-up Study. Research report published by the University of Bristol School of Education.

_____. 1971. The Challenge of Outward Bound. London: William Heinemann.

Freud, Sigmund. 1933. New Introductory Lectures on Psycho-Analysis. New York: W.W. Norton and Co.

_____. 1936. The Problem of Anxiety. New York: W.W. Norton and Co.

Fromme, Allan. 1967. Our Troubled Selves. New York: Farrar, Straus, and Girous.

Gergen, Kenneth J. 1971. The Concept of Self. New York: Holt, Rinehart, and Winston.

_____. 1972. Multiple Identity: The Healthy, Happy, Human Being Wears Many Masks. Psychology Today 2(12):31-35.

Gough, Harrison G. and Heilbrun, Alfred G. 1965. The Adjective Check List Manual. Palo Alto, California: Consulting Psychologists Press.

Grinker, Roy R. 1966. The Psychosomatic Aspects of Anxiety. In Anxiety and Behavior, ed. Charles D. Spielberger, pp. 129-156. New York: Academic Press.

Groosman, Edward. 1967. A Rough Cure for Adolescence. Harper's Magazine May 234:69-80.

Hahn, Kurt. 1957. Origins of the Outward Bound Trust. In Outward Bound, ed. David James, pp. 1-17. London: Routledge and Kegan Paul.

Hanlon, Thomas E., Hofstaetter, Peter R., and O'Connor, James P. 1954. Congruence of Self and Ideal Self in Relation to Personality Adjustment. Journal of Consulting Psychology 18:215-218.

Hawkes, Glen, Schulze, Joseph, Delaney, John, Schulze, Trudy, and Woodbury, John. 1970. Evaluation of Outward Bound Teachars' Practica: Summer, 1969. Reston, Virginia: Outward Bound, Inc.

Henyo Anne. 1972. The Blenheim Project. Strive (Outward Bound Trust Publication). 2(2):32-34.

Hodges, William F., and Felling, James P. 1970. Types of Stressful Situations and Their Relation to Trait Anxiety and Sex. Journal of Consulting and Clinical Psychology 34(3):333-337.

Hogan, J.M. 1968. Impelled Into Experiences. London: E.P. Publishing Co.

Horrocks, John E. 1969. The Psychology of Adolescence. 3rd ed. Boston: Houghton Mifflin Co.

Horrocks, John E., and Jackson, Dorothy W. 1972. Self and Role. Boston: Houghton Mifflin Co.

Huberman, John. 1968. A Psychological Study of Participants in High-Risk Sports. Unpublished Doctor's dissertation, The University of British Columbia.

Jersild, Arthur T. 1963. The Psychology of Adolescence. 2nd ed. New York: Macmillan Co.

Johnson, W.R., Fretz, B.R., and Johnson, Julia A. 1968. Changes in self-concept during a physical development program. Research Quarterly 39:560-565.

Jones, Emlyn H., Nye, Robert P., and Remley, Barry G. 1972. Outward Bound at Westchester State College. Journal of Health, Physical Education, and Recreation 43(9):40-41.

Kelly, Francis J., and Baer, David J. 1968. Outward Bound Schools as an Alternative to Institutionalization for Adolescent Delinquent Boys. Reston, Virginia: Outward Bound, Inc.

_____. 1971. Physical Challenge as a Treatment for Delinquency. Crime and Delinquency 17(4):437-445.

Klausner, Samuel Z. 1968. The Intermingling of Pain and Pleasure: The Stress-seeking Personality in its Social Context. In Why Man Takes Chances, ed. Samuel Z. Klausner, pp. 137-168. New York: Doubleday and Co.

_____. 1970. Assertion and Obliteration of the Self Among Sport Parachutists: An Analysis of the Impact of Group Psychological Climate. In Contemporary Psychology of Sport, ed. Gerald S. Kenyon, pp. 375-394. Chicago: Athletic Institute.

Korchin, Sheldon J. 1965. Some Psychological Determinants of Stress Behavior. In Quest for Self-Control, ed. Samual Z. Klausner, pp. 247-266.

La Fontaine, Barbara. 1966. Babes in the Woods. Sports Illustrated 25(2):60-73 and 25(3):45-51.

Lawrence, Lydia. 1963. Outward Bound: Rugged Challenge for Teenagers. Reader's Digest 82:183-184.

Lazarus, Richard S. 1966. Psychological Stress and the Coping Process. New York: McGraw-Hill Book Co.

Lester, James T. 1969. Stress: On Mount Everest. Psychology Today 3(4):28-29.

Leviton, Daniel. 1970. Some Reactions Toward Death Among Danger-Defying Sportsmen. In Contemporary Psychology of Sport, ed. Gerald S. Kenyon, pp. 275-281. Chicago: Athletic Institute.

Levitt, Eugene E. 1967. The Psychology of Anxiety. Indianapolis: Bobbs-Merrill Co.

Life. 1964. Marshmallow Becomes a Man. 57(6):528-65.

Lindgren, Henry Clay, Byrne, Donn, and Patrinovich, Lewis. 1966. Psychology: An Introduction to a Behavioral Science. 2nd ed. New York: John Wiley and Sons.

Longland, Jack. 1957. Outward Bound Junior Courses. In Outward Bound, ed. David James, pp. 174-187. London: Routledge and Kegan Paul.

Lovett, Richard A. 1971. Outward Bound: A Means of Implementing Guidance Objectives. Reston, Virginia: Outward Bound, Inc.

Mackintosh, H. Stewart. 1957. Character Training and the Contribution made by Outward Bound. In Outward Bound, ed. David James, pp. 157-173. London: Routledge and Kegan Paul.

Maynard, A. Lee. 1969. Nature as a Teacher. Saturday Review 17 May 52:76-77.

Mead, George H. 1934. Mind, Self, and Society. Chicago: University of Chicago Press.

Medrick, Frederick W. No date. Outward Bound and Higher Education. Denver: Colorado Outward Bound School.

Meiser, Patricia Hofmann. 1971. The Self Perceptions of Intercollegiate Field Hockey Candidates at the Beginning and End of a Season of Competition. Unpublished Master's thesis, The Pennsylvania State University.

Neale, Daniel C. Sonstroem, Robert J., and Metz, Kenneth F. 1969. Physical fitness, self-esteem, and attitudes towards physical activity. Research Quarterly 40:743-749.

Nelson, Sara Marie. 1965. An investigation of the relationship between the real self-concept: ideal self-concept and motor ability of eighth grade girls in physical education. Unpublished Master's thesis, University of North Carolina at Greensboro.

Outward Bound, Inc. 1971. Outward Bound Annual Report 1970-71. Reston, Virginia: Outward Bound, Inc.

Pickard, H. Stuart. 1968. Outward Bound. Today's Education 57(8):20-21.

Popham, W. James. 1967. Educational Statistics: Use and Interpretation. New York: Harper and Row.

Radloff, Roland and Helmreich, Robert. 1969. Stress: Under the Sea. Psychology Today 3(4):28-29.

Ritchey, John M. 1972. Coeducational Mountaineering. Journal of Health, Physical Education, and Recreation. 43(8):22.

Rosenberg, Morris. 1965. Society and the Adolescent Self-Image. Princeton, New Jersey: Princeton University Press.

_____. 1967. Psychological Selectivity in Self-Esteem Formation. In Attitude, Ego-Involvement, and Change, eds. Carolyn W. Sherif and Muzafer Sherif, pp. 26-50.

Roubicek, J. 1969. Anxiety and Higher Nervous Functions. In Studies of Anxiety, ed. M.H. Lader, pp. 21-25. Ashford, Kent: Headley Brothers.

Sarason, Irwin G. 1962. Empirical Findings and Theoretical Problems in the Use of Anxiety Scales. In Contemporary Research in Personality, ed. Irwin G. Sarason, pp. 23-33. Princeton, New Jersey: D. Van Nostrand Co.

_____. 1966. Personality: An Objective Approach. New York: John Wiley and Sons.

Schroder, Harold M., and Lee, Robert E. 1967. Effects of Outward Bound Training on Urban Youth. Reston, Virginia: Outward Bound, Inc.

Schulze, Joseph R. 1970. Evaluation of the Effects of Outward Bound Training Upon Dartmouth College Students, and New Hampshire Secondary School Students. Reston, Virginia: Outward Bound, Inc.

_____. 1971. An Analysis of the Impact of Outward Bound on Twelve High Schools. Reston, Virginia: Outward Bound, Inc.

Selye, Hans. 1956. The Stress of Life. New York: McGraw-Hill Book Co.

_____. 1963. The Individual Reaction to Stress. In Man Under Stress, eds. M. Farber, Piero Mustacchi, and Roger H.L. Wilson, pp. 31-37. Paper read at California and the Challenge of Growth, Conference 7, at the University of California.

Sherif, Carolyn W. and Sherif, Muzafer., eds. 1967. Attitude, Ego-Involvement, and Change. New York: John Wiley and Sons.

Sherif, Muzafer, and Sherif, Carolyn W. 1969. Social Psychology. New York: Harper and Row.

Siegel, Sidney. 1956. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Co.

Snygg, Donald, and Combs, Arthur W. 1949. Individual Behavior. New York: Harper and Row.

Spielberger, Charles D. 1966. Theory and Research in Anxiety. In Anxiety and Behavior, ed. Charles D. Speilberger, pp. 3-20. New York: Academic Press.

_____. 1972. Anxiety as an Emotional State. In Anxiety: Current Trends in Theory and Research, Vol. 1, ed. Charles D. Spielberger, pp. 23-49. New York, Academic Press.

Spielberger, Charles D., Gorsuch, Richard L., and Lushene, Robert E. 1970. STAI Manual. Palo Alto, California: Consulting Psychologists Press.

Stevenson, Ian. 1962. Is the Human Personality More Plastic in Infancy and Childhood? In Contemporary Research in Personality, ed. Irwin G. Sarason, pp. 138-148. Princeton, New Jersey: D. Van Nostrand Co.

Stimpson, David V., and Petersen, Darhl M. 1970. Effects of a Survival Training Experience Upon Evaluation of Self and Others for Underachieving High School Students. Perceptual and Motor Skills 31(1):337-338.

Summers, Spencer. 1957. The History of the Trust. In Outward Bound, ed. David James, pp. 18-58. London: Routledge and Kegan Paul.

Thomas, D.R.O. 1957. The Outward Bound Schools and Industry. In Outward Bound, ed. David James, pp. 137-156. London: Routledge and Kegan Paul.

Wendel, Robert E. 1972. Occupational Programs are the Future. Journal of Health, Physical Education, and Recreation 43(8):17.

Wylie, Ruth C. 1961. The Self Concept. Lincoln, Nebraska: University of Nebraska Press.

APPENDIX A

DESCRIPTIONS OF SELECTED ACL SCALES

DESCRIPTION OF SCALES

The following descriptions of the scales of the ACL are taken from the Manual: (Gough and Heilbrun 1965, pp. 5-9)

1. Total number of adjectives checked: No. Ckd

   Checking many adjectives seems to reflect surgency and drive, and a relative absence of repressive tendencies. Correlation with intelligence is slightly negative, so that the exuberance in behavior may possibly spring more from shallowness and inattention to ambiguities than from a deep level of involvement. The individual high on this variable tends to be described as emotional, adventurous, wholesome, conservative, enthusiastic, unintelligent, frank, and helpful. He is active, apparently means well, but tends to blunder. The man with low scores tends more often to be quiet and reserved, more tentative and cautious in his approach to problems, and perhaps at times unduly tactiturn and aloof. He is more apt to think originally and inventively, but is perhaps less effective in getting things done.

2. Defensiveness: Df

   The higher-scoring person is apt to be self-controlled and resolute in both attitude and behavior, and insistent and even stubborn in seeking his objectives. His persistence is more admirable than attractive. The lower-scoring subject tends to be anxious and apprehensive, critical of himself and others, and given to complaints about his circumstances. He not only has more problems than his peers, but tends to dwell on them and put them at the center of his attention.

3. Number of favorable adjectives checked: Fav

   The individual who checks many of the words in the list of 75 appears to be motivated by a strong desire to do well and to impress others, but always by virtue of hard work and conventional endeavor. The reaction of others is to see him dependable, steady, conscientious, mannerly, and serious; there is also the suspicion that he may be too concerned about others, and lacking in verve and quickness of mind. Egotism and self-centeredness, which might be suggested by the way in which the variable was derived, is seldom salient in high-scoring subjects.

   The low-scoring subject is much more of an individualist--more often seen as clever, sharp-witted, headstrong, pleasure-seeking, and original in thought and behavior. His emotions being more accessible, he also more often experiences anxiety, self-doubts, and perplexities.

4. Number of unfavorable adjectives checked: Unfav

From individual work with subjects who have scored high on this scale it appears that checking of unfavorable adjectives does not spring from a sense of humility and self-effacement, but more from a kind of impulsive lack of control over the hostile and unattractive aspects of one's personality. The high-scoring subject strikes others as rebellious, arrogant, careless, conceited, and cynical. He tends to be a disbeliever, a skeptic, and a threat to the complacent beliefs and attitudes of his fellows. The low-scorer is more placid, more obliging, more mannerly, more tactful, and probably less intelligent.

5. Self-confidence: S-Cfd

Interpretation of S-Cfd stresses a sense of dominance, clearly one of the major elements in the syndrome defined by the scale. The high-scorer is assertive, affiliative, outgoing, persistent, an actionist. He wants to get things done, and is impatient with people or things standing in his way. He is concerned about creating a good impression, and is not above cutting a few corners to achieve this objective. He makes a distinct impression on others, who see him as forceful, self-confident, determined, ambitious, and opportunistic.

The low-scoring person is a much less effective person in the everyday sense of the word--he has difficulty in mobilizing himself and taking action, prefering inaction and contemplation. Others see him as unassuming, forgetful, mild, preoccupied, reserved, and retiring.

6. Self-control: S-Cn

High scorers tend to be serious, sober individuals, interested in and responsive to their obligations. They are seen as diligent, practical, and loyal workers. At the same time there may be an element of over-control, too much emphasis on the proper means for attaining the ends of social living. Thus the highest level of ego integration, involving recognition and sublimation of chaotic and destructive impulse along with the allosocial and life-giving dispositions, may be denied to these individuals.

At the other end of the scale one seems to find the inadequately socialized person, headstrong, irresponsible, complaining, disorderly, narcissistic, and impulsive. Needless to say, the low-scoring subject tends to be described in unflattering terms, even including such words as obnoxious, autocratic, and thankless.

7. Lability: Lab

The high-scoring subject is seen favorably as spontaneous, but unfavorably as excitable, temperamental, restless, nervous, and high-strung. The psychological equilibrium, the balance of forces, is an uneasy one in this person and he seems impelled toward change and new experience in an endless flight from his perplexities.

The low-scorer is more phlegmatic, routinized, planful and conventional. He reports stricter opinions on right and wrong practices, and a greater need for order and regularity. He is described by observers as thorough, organized, steady, and unemotional.

8. Personal Adjustment: Per Adj

The high-scoring subject is seen as dependable, peaceable, trusting, friendly, practical, loyal, and wholesome. He fits in well, asks for little, treats others with courtesy, and works enterprisingly toward his own goals. He may or may not understand himself psychodynamically, but he nonetheless seems to possess the capacity to "love and work."

The subject low on the personal adjustment scale sees himself as at odds with other people and as moody and dissatisfied. This view is reciprocated by observers, who describe the low scorer as aloof, defensive, [illegible]ous, inhibited, worrying, withdrawn, and unfriendly. What appears to begin as a problem in self-definition eventuates as a problem in interpersonal living.

9. Achievement: Ach

Definition: To strive to be outstanding in pursuits of socially recognized significance.

The high-scoring subject on Ach is usually seen as intelligent and hard-working, but also as involved in his intellectual and other endeavors. He is determined to do well and usually succeeds. His motives are internal and goal-centered rather than competitive, and in his dealings with others he may actually be unduly trusting and optimistic. The low scoring subject on Ach is more skeptical, more dubious about the rewards which might come from effort and involvement, and uncertain about risking his labors. He tends also to be somewhat withdrawn and dissatisfied with his current status.

10. Dominance: Dom

Definition: to seek and sustain leadership roles in groups or to be influential and controlling in individual relationships.

The high-scorer on this scale is a forceful, strong-willed, and persevering individual. He is confident of his ability to do what he wishes and is direct and forthright in his behavior. The low scorer on Dom is unsure of himself,

and indifferent to both the demands and the challenges of interpersonal life. He stays out of the limelight, and avoids situations calling for choice and decision-making.

11. Endurance: End

Definition: to persist in any task undertaken.

The subject high on End is typically self-controlled and responsible, but also idealistic and concerned about truth and justice. By nature conventional, he may nonetheless (because of his sense of recititude) find himself championing unconventional ideas and unpopular causes. The low-scorer on End, on the other hand, is erratic and impatient, intolerant of prolonged effort or attention, and apt to change in an abrupt and quixotic manner.

12. Order: Ord

Definition: to place special emphasis on neatness, organization, and planning in one's activities.

High-scorers on Ord are usually sincere and dependable, but at the cost of individuality and spontaneity. These self-denying and inhibitory trends may actually interfere with the attainment of the harmony and psychic order which they seek. Low-scorers are quicker in temperament and reaction, and might often be called impulsive. They prefer complexity and variety, and dislike delay, caution, and deliberation.

13. Intraception: Int

Definition: to engage in attempts to understand one's own behavior or the behavior of others.

The high-scorer on Int is reflective and serious, as would be expected; he is also capable, conscientious, and knowledgeable. His intellectual talents are excellent and he derives pleasure from their exercise. The low-scorer may also have talent, but he tends toward profligacy and intemperateness in its use. He is aggressive in manner, and quickly becomes bored or impatient with any situation where direct action is not possible. He is a doer, not a thinker.

14. Nurturance: Nur

Definition: to engage in behaviors which extend material or emotional benefits to others.

The subject high on this scale is of a helpful, nurturant disposition, but sometimes too bland and self-disciplined. His dependability and benevolence are worthy qualities, but he may nonetheless be too conventional and solicitous of the other person. The subject scoring low on Nur is the opposite: skeptical, clever, and acute, but too self-centered and too little attentive to the feelings and wishes of others.

15. Affiliation: Aff

Definition: to seek and sustain numerous personal friendships.

The high-scorer on Aff is adaptable and anxious to please, but not necessarily because of altruistic motives; i.e., he is ambitious and concerned with position, and may tend to exploit others and his relationships with them in order to gain his ends. The low-scorer is more individualistic and strong-willed, though perhaps not out of inner resourcefulness and independence. He tends to be less trusting, more pessimistic about life, and restless in any situation which intensifies or prolongs his contacts with others.

17. Exhibition: Exh

Definition: to behave in such a way as to elicit the immediate attention of others.

Persons who are high on this scale tend to be self-centered and even narcissistic. They are poised, self-assured, and able to meet situations with aplomb, but at the same time they are quick tempered and irritable. In their dealings with others they are apt to be opportunistic and manipulative. Persons who score low tend toward apathy, self-doubt, and undue inhibition of impulse. They lack confidence in themselves and shrink from any encounter in which they will be visible or "on stage."

18. Autonomy: Aut

Definition: to act independently of others or of social values and expectations.

The high-scorer on Aut is independent and autonomous, but also assertive and self-willed. He tends to be indifferent to the feelings of others and heedless of their preferences when he himself wishes to act. The low-scorer is of a moderate and even subdued disposition. He hesitates to take the initiative, preferring to wait and follow the dictates of others.

19. Aggression: Agg

Definition: to engage in behaviors which attack or hurt others.

The individual high on this scale is both competitive and aggressive. He seeks to win, to vanquish, and views others as rivals. His impulses are strong, and often under-controlled. In an appropriate situation he may drive on to worthy attainment, but often his behaviors will be self-aggrandizing and disruptive. The individual who is low on Agg is much more of a conformist, but not necessarily lacking in courage or tenacity. He tends to be patiently diligent, and sincere in his relationships with others.

20. Change: Cha

Definition: to seek novelty of experience and avoid routine.

Persons high on Cha are typically perceptive, alert, and spontaneous individuals who comprehend problems and situations rapidly and incisively and who take pleasure in change and variety. They have confidence in themselves and welcome the challenges to be found in disorder and complexity. The low-scorer seeks stability and continuity in his environment, and is apprehensive of ill-defined and risk-involving situations. In temperament he is patient and obliging, concerned about others, but lacking in verve and energy.

21. Succorance: Suc

Definition: to solicit sympathy, affection, or emotional support from others.

Suc appears to depict, at its high end, a personality which is trusting, guileless, and even naive in its faith in the integrity and benevolence of others. The high-scorer is dependent on others, seeks support, and expects to find it. The low-scorer, on the contrary, is independent, resourceful, and self-sufficient, but at the same time prudent and circumspect. He has a sort of quiet confidence in his own worth and capability.

22. Abasement: Aba

Definition: to express feelings of inferiority through self-criticism, built, or social impotence.

High-scorers on Aba are not only submissive and self-effacing, but also appear to have problems of self-acceptance. They see themselves as weak and undeserving, and face the world with anxiety and foreboding. Their behavior is often self-punishing, perhaps in the hope of forestalling criticism and rejection from without. The low-scorer is optimistic, poised, productive, and decisive. Not fearing others, he is alert and responsive to them. His tempo is brisk, his manner confident, and his behavior effective.

23. Deference: Def

Definition: to seek and sustain subordinate roles in relationship with others.

The individual scoring high on Def is typically conscientious, dependable, and persevering. He is self-denying not so much out of any fear of others or inferiority to them as out of a preference for anonymity and freedom from stress and external demands. He attends modestly to his affairs, seeking little, and yielding always to any reasonable claim by another. The individual with a low score on Def is more energetic, spontaneous, and independent; he likes attention,

likes to supervise and direct others, and to express his will. He is also ambitious, and is not above taking advantage of others and coercing them if he can attain a goal in so doing.

APPENDIX B

INSTRUCTIONS FOR TEST ADMINISTRATION, LETTERS OF INTRODUCTION, AND ACL TEST INSTRUCTIONS

INSTRUCTIONS FOR TEST ADMINISTRATION: PRETEST

1. INTRODUCTION. READ THE FOLLOWING: "The Outward Bound experience offers many opportunities for self-examination and personal reflection. A study is being conducted on the nature of self perceptions for Outward Bound participants as a group. We will now complete three short tests to be used in this study."

2. PASS OUT THE TESTS.

3. READ: "Please check that you have received these items in the following order: (1) a letter of introduction; (2) a 'Self-Evaluation Questionnaire'; (3) an 'Adjective Check List'; and (4) an 'Adjective Check List' with typed instructions. Read the letter of introduction, then proceed to the first test, read its instructions, and begin with test item number one. Continue working through all three tests, following test directions carefully. Be certain you have written your three initials where it says 'name' on each test and have filled in your age and sex on the 'Adjective Check List.' When you have completed all three tests, paper clip them together again and turn them in to me."

INSTRUCTIONS FOR TEST ADMINISTRATION: POST-TEST

1. INTRODUCTION. READ THE FOLLOWING: "Your Outward Bound experience has offered you many opportunities for self-examination and personal reflection. At this time we will again complete the three short tests that are being used to examine the nature of these self perceptions."

2. PASS OUT THE TESTS.

3. READ: "Please check that you have received these items in the following order: (1) a letter of introduction; (2) a 'Self-Evaluation Questionnaire'; (3) an 'Adjective Check List'; and (4) an "Adjective Check List' with typed instructions. Read the letter of introduction, then proceed to the first test, read its directions, and begin with test item number one. Continue working through all three tests, following test directions carefully. Be certain you have written your three initials where it says 'name' on each test and have filled in your age and sex on the "Adjective Check List.' When you have completed all three tests, paper clip them together again and turn them in to me."

Dear Outward Bound participant:

The Outward Bound experience encourages self-examination and personal reflection. As part of my graduate studies, I am investigating the nature of these self perceptions. My interest in this topic stems from my own participation in an Outward Bound course in 1971.

Please complete the following three tests in the order that you find them attached. Read the instructions for each test carefully. Note especially that there are different instructions for each side of the "Self-Evaluation Questionnaire"; instructions for the two "Adjective Check Lists" also differ from one another.

Be sure to include your three initials, age, and sex in the appropriate spaces on the tests. Although data will be analyzed anonymously, your three initials are needed for identification of the tests.

As you complete the tests, please express your real feelings. It is essential that you be frank and honest with yourself.

Thank you for participating in this study. Your cooperation is very much appreciated.

Sincerely,

Sharon Koepke

Dorothy V. Harris, Ph.D.
Thesis Adviser

Dear Outward Bound participant:

During the past three weeks you have engaged in a number of activities that may have stimulated self-examination and personal reflection. In order to complete a study on the nature of these self perceptions, I need to obtain data from you once again.

Please complete the following three tests in the order that you find them attached. Read the instructions for each test carefully. Note especially that there are different instructions for each side of the "Self-Evaluation Questionnaire"; instructions for the two "Adjective Check Lists" also differ from one another.

Be sure to include your three initials, age, and sex in the appropriate spaces on the tests. Although data will be analyzed anonymously, your three initials are needed for identification of the tests.

As you complete the tests, please express your real feelings. It is essential that you be frank and honest with yourself.

Thank you for participating in this study. Your cooperation is very much appreciated.

Sincerely,

Sharon Koepke

Dorothy V. Harris, Ph.D.
Thesis Adviser

TEST DIRECTIONS: REAL SELF-CONCEPT

(as found on test booklet)

DIRECTIONS: This booklet contains a list of adjectives. Please read them quickly and put an X in the box beside each one you would consider to be self-descriptive. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank and check those adjectives which describe you as you really are, not as you would like to be.

TEST DIRECTIONS: IDEAL SELF-CONCEPT

(adapted from standard instructions)

DIRECTIONS: This booklet contains a list of adjectives. Please read them quickly and put an X in the box beside each one that describes the person you would like to be. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank, and check those adjectives which describe the person you would ideally like to be.

APPENDIX C

STATE AND TRAIT ANXIETY SCORES

TABLE 12

PRE- AND POSTTEST STATE AND TRAIT ANXIETY SCORES
(N=M-33, F-11)

Subject	Sex	State Anxiety		Trait Anxiety	
		Pretest	Posttest	Pretest	Posttest
1	M	30	25	33	33
2	M	32	31	28	29
3	M	45	45	38	56
4	M	62	24	27	27
5	M	39	35	47	41
6	M	29	22	30	30
7	M	30	22	26	24
8	M	42	40	46	35
9	M	38	22	37	21
10	M	42	35	49	46
11	M	49	25	36	32
12	M	29	46	25	38
13	M	36	20	42	25
14	M	28	28	23	22
15	M	33	24	42	35
16	M	34	36	43	30
17	M	30	31	40	34
18	M	35	22	54	45
19	M	41	34	41	32
20	M	50	23	55	25
21	M	55	35	55	54
22	M	33	28	44	41
23	M	51	25	60	41
24	M	34	30	40	44
25	M	47	45	47	45
26	M	20	21	32	24
27	M	33	23	28	23
28	M	27	23	33	27
29	M	45	27	49	33
30	M	45	32	--	34
31	M	41	27	--	34
32	M	31	38	--	49
33	M	52	32	--	--
34	F	33	22	45	38
35	F	62	31	46	47
36	F	55	27	54	46
37	F	40	33	51	48
38	F	41	25	47	32
39	F	33	23	34	25
40	F	45	34	51	47
41	F	29	25	46	44
42	F	35	32	37	35
43	F	35	20	31	27
44	F	34	30	--	33